AMENDMENT OF SOLICITATION	N/MODIFICATION O	OF CONTRACT	1. CONTRACT ID	CODE	PAGE OF PAGES
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURC	HASE REQ. NO.	5. PROJECT	1 3
. M173	10/1/98				
S. ISSUED BY CODE		7. ADMINISTERED BY	(If other than Item	6) CODE	
U.S. Department of Energy TUNAF Site Office 12000 Jefferson Avenue Newport News, VA 23606				CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No	., street, county, State and 2	ZIP Code)	(/) 9A. AMENDI	MENT OF SOLI	CITATION NO.
Southeastern Universi	ties Research		9B. DATED	(SEE ITEM 11)	
Association, Inc. 1200 New York Avenue, Suite 710	, NW		10A. MODIF	ICATION OF CO	ONTRACT/ORDER
Washington, D.C. 2000	05		x DE-ACC	5-84ER401	
	Teach investor		l 1	(SEE ITEM 13)	
CODE	FACILITY CODE	AMENIDAENTO OF O		st 3, 1984	
11. THIS ITE	M ONLY APPLIES TO	AMENDMENTS OF SC	DLICITATIONS		
Offers must acknowledge receipt of this amendment  (a) By completing Items 8 and 15, and returning submitted; or (c) By separate letter or telegram when to BE RECEIVED AT THE PLACE DESIGN REJECTION OF YOUR OFFER. If by virtue teletter, provided each telegram or letter makes reference in the provided each t	copies of the amendration includes a reference to the solicitation and the control of this amendment you designate to the solicitation and the control of th	nent; (b) By acknowledging the solicitation and amend. T OF OFFERS PRIOR TO the to change an offer alreach is amendment, and is reconstructed by the control of the control	TRACTS/ORDE ED IN ITEM	nendment on eac LURE OF YOU DATE SPECIF change may be n pening hour and RS,	ch copy of the offer R ACKNOWLEDG- IED MAY RESULT made by telegram or date specified.
X In accordance with Art	icle 32, "Allowab	ole Costs and Ma	nagement Fe	5,,	
D. OTHER (Specify type of modification and	authority)				
E. IMPORTANT: Contractor is not,  14. DESCRIPTION OF AMENDMENT/MODIFICA		is document and return section headings, including		es to the issuin	· ·
	SEE	FOLLOWING PAGES			
Except as provided herein, all terms and conditions	of the document referenced	I in Item 9A or 10A, as he	retofore changed, re	amains unchange	ed and in full force
and effect.  15A. NAME AND TITLE OF SIGNER (Type or pr.  JOHN G. MULLIN		16A. NAME AND TITL			
SR VICE PRESIDENT, OPERATION	NS	James W. S	kinner, Con	tracting (	)fficer
15B. CONTRACTOR/OFFEROR		16B. UNTED STATES	OF AMERICA		16C. DATE SIGNED
guanne		BY Janes 1	1. Sture	1	10-29-99
(Signature of person authorized to sign)	10/29/99	/ (Signature	of Contracting Off	icer)	10 -1 1

NSN 7540-01-152-8070 PREVIOUS EDITION UNUSABLE

ቀኅኖለ ለለለ

- 1. The purpose of this modification is to:
  - a. Establish the management fee to be paid during the period October 1, 1998 through September 30, 1999 at \$1,926,185.
  - b. Revise paragraph b of Article 32 entitled DEAR 970.5204-13 Allowable Costs and Management Fee as follows:

#### Management Fee:

The management fee payable to the Contractor for the performance of the work under his contract with respect to the period October 1, 1998, to and including September 30, 1999 is \$1,926,185. The parties further agree that: 1) \$350,000 of fiscal year 1996 management fee, \$100,000 of the fiscal year 1997 management fee, \$0 of the fiscal year 1998 management fee, and \$0 of the fiscal year 1999 management fee are the "risk funds" provided to the contractor to cover the additional financial risks that the contractor has assumed pursuant to section (e)(17)(iv)(C) of Article 32 "Allowable Costs and Management Fee," Article 35 "Costs Associated with Whistleblower Actions," section (f)(1)(C) of Article 68 "Property" Note that the total funds provided to create the "reserve fund" in FY 1996 and FY 1997 equate to \$450,000; 2) Any positive difference between the "reserve fund" provided in fiscal years 1996 and 1997 and the actual expenditures to cover the financial risk described above (or agreed upon encumbrances due to pending claims) in fiscal year 1996, 1997, 1998 and 1999 would be carried over and treated as a credit toward establishing the appropriate "reserve fund" in future fiscal years; and, 3) During the last year of the contract (and any extension thereto), the amount held in the "reserve fund" will be treated as a credit toward the last year's fee negotiations. It is the intent of both parties that the contractor will not keep any of the unused "reserve funds" upon expiration of this contract or any subsequent extension, thereto.

2. A summary of the "reserve fund" paid to the contractor by fiscal year is as follows:

F Y96 - October 1, 1995 through September 30, 1996	ずろうひりひひ
FY97 - October 1, 1996 through September 30, 1997	\$100,000
FY98 - October 1, 1997 through September 30, 1998	-0-
FY99 - October 1, 1998 through September 30, 1999	
TOTAL:	\$450,000

Contract No. DE-AC05-84ER40150 Modification No. M173 Page 3 of 3

# 3. A summary of the management fee paid to the contractor by fiscal year is as follows:

FY88 - October 1, 1987 through September 30, 1988	\$ 900,000
FY89 - October 1, 1988 through September 30, 1989	\$1,040,000
FY90 - October 1, 1989 through September 30, 1990	\$1,070,000
FY91 - October 1, 1990 through September 30, 1991	\$1,140,000
FY92 - October 1, 1991 through September 30, 1992	\$1,217,000
FY93 - October 1, 1992 through September 30, 1993	\$1,270,160
FY94 - October 1, 1993 through September 30, 1994	\$1,292,073
FY95 - October 1, 1994 through September 30, 1995	\$1,337,040
FY96 - October 1, 1995 through September 30, 1996	\$2,264,110
FY97 - October 1, 1996 through September 30, 1997	\$1,970,209
FY98 - October 1, 1997 through September 30, 1998	\$1,874,633
FY99 - October 1, 1998 through September 30, 1999	<b>\$1,926,185</b>
TOTAL:	\$17,301,410

<sup>4.</sup> All other terms and conditions remain unchanged and in full force and effect.

AMENDMENT OF SOLICITATION	MODIFICATION	OF CONTRACT	]1. C	ONTRACT ID	ODE	PAGE OF PAGES
2, AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	T4. REQUISITION/PU	20106	E DEO NO	E DDO (ECT	NO. (If applicable)
	Nov.1, 1999	4. REQUISITION/PU	RCHAS	E REQ. NO.	S. PROJECT	NO. (17 applicable)
AM174 6. ISSUED BY	1400.1, 1999	7. ADMINISTERED I	BY (If o	ther than I tem 6	,	
U.S. Department of Energy		1			CODE I	<u> </u>
TUNAF Site Office						*
12000 Jefferson Avenue		<u>}</u>				
Newport News, VA 23606		·				:
8. NAME AND ADDRESS OF CONTRACTOR (No.,	chart county State and	779 (lode)	1.0	IOA AMENIDA	ENT OF SOL	ICITATION NO.
	street, county, State and	217 (002)	(4)	SA. AMERUM	-141 O. 30¢	ETTATION NO.
Southeastern Universities Res	earch					·
Association, Inc.	• `•	•		9B. DATED (S	KE ITEM 11)	
1200 New York Avenue, NW		•		1		
Suite 710	•	•		10A. MODIFIC	ATION OF	ONTRACT/ORDER
Washington, D.C. 20005					0.4779.403	
	•			DE-ACUS	~84ER401	•
2005	FACILITY CODE		-X	1	3, 1984	•
CODE 11 THIS ITE	M ONLY APPLIES TO	AMENDMENTS OF	SOLIC			· · · · · · · · · · · · · · · · · · ·
The above numbered solicitation is amended as	, <u>, , , , , , , , , , , , , , , , , , </u>		·	Г	is extende	d is not ex-
	PLIES ONLY TO MODE THE CONTRACT/ORIGINATE TO: (Specify authority per 14, PURSUANT TO 15) ENTERED INTO PURSUA 6-302-3 (A) (2) (1)	DIFICATIONS OF COMEN OF COMEN OF COMEN OF CHANGES STATES AND THE AUTHORITY OF COMEN	ONTRA RIBED SET FO	ACTS/ORDEFIN ITEM 14.  RTH IN ITEM 1  TIVE CHANGE 103(b).	RS, 4 ARE MADE S (such as cha	E IN THE CON- mges in paying office,
B. Of FIER (Specify type of modification and		August	. T4(	1990		
14. DESCRIPTION OF AMENDMENT/MODIFICA	÷	section headings, includ	ing solid	itation/contract	eubject matte	er where feasible.)
The purpose of this modern for the month of October one month contract extends	er. This one mo	nth payment of	man	agement fe	e is due	to the
M169.			•			
•	•	•				
	•					•
Except as provided herein, all terms and conditions	of the document reference	d in Item 9A or 10A, as	s heretoi	ore changed, re	nains unchanç	jed and in full force
and effect.  15A. NAME AND TITLE OF SIGNER (Type or pri		16A. NAME AND T				
JOHN G. MULLIN	•					
SR. VICE PRESIDENT, OPERATION				nner, Cont	racting	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNE	D 16B. UNITED STAT	ES OF	AMERICA		16C. DATE SIGNED
Guarmen		BY James	Wi	Sames		10/29/99
(Signature of person authorized to sign)	10/29/99	(Signa	ture of C	ontracting Office	er)	1 1 1
NSN 7540-01-152-8070	3	30-105			ANDARD FO	ORM 30 (REV. 10-83) SA

AMENDMENT OF SOLICITATION	MODIFICATION C	F CONTRACT	1. CONTRACT ID C	ODE PAGE OF PAGES
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURC	HASE REQ. NO.	5. PROJECT NO. (If applicable)
<u> M175</u>	Nov. 1, 1999			
6. ISSUED BY CODE		7. ADMINISTERED BY	(If other than Item 6,	CODE
U.S. Department of Energy			,	
TUNAF Site Office 12000 Jefferson Avenue	•		Ÿ	
Newport News, VA 23606				
· · ·	•			
8. NAME AND ADDRESS OF CONTRACTOR (No.,	etreet, county, State and 2	CIP Code)	(4) SA. AMENDMI	ENT OF SOLICITATION NO.
Southeastern Universities Re	search			
Association, Inc.			98. DATED (S	RE ITEM 11)
1200 New York Avenue, NW				
Suite 710			10A, MODIFIC	ATION OF CONTRACT/ORDER
Washington, D.C. 20005		!	1	
			DE-ACC	5-84ER40150
	I		X 10B. DATED	•
CODE 11 THIS ITE	FACILITY CODE MONLY APPLIES TO	AMENDMENTS OF SC		3, 1984
			·[-	Т П
The above numbered solicitation is amended as tended.	set forth in Item 14. The h	our and date specified for	receipt of Offers L	is extended, is not ex-
Offers must acknowledge receipt of this amendment	prior to the hour and date	specified in the solicitation	n or as amended, by o	one of the following methods:
(a) By completing I tems 8 and 15, and returning	copies of the amenda	ment; (b) By acknowledgi	ng receipt of this ame	indment on each copy of the offer
submitted; or (c) By separate letter or telegram wh MENT TO BE RECEIVED AT THE PLACE DESIGN	NATED FOR THE RECEIP	PT OF OFFERS PRIOR TO	O THE HOUR AND I	DATE SPECIFIED MAY RESULT
IN REJECTION OF YOUR OFFER, If by virtue of letter, provided each telegram or letter makes referen	if this amendment you desir	re to change an offer airea	dv submitted, such cl	nange may be made by telegram or
12. ACCOUNTING AND APPROPRIATION DATA				
N/A				
13. THIS ITEM AF	PLIES ONLY TO MOD	IFICATIONS OF CON	TRACTS/ORDER	S,
IT MODIFIES	THE CONTRACT/ORD	DER NO AS DESCRIB	ED IN ITEM 14.	
A. THIS CHANGE ORDER IS ISSUED PURS	UANT TO: (Specify autho	MN) THE CHANGES SE	· PORIMINITEM I	AKE MADE IN THE COM
		SELECT THE ADMINIS	TRATIVE CHANGE	S leuch as changes in paying office
B. THE ABOVE NUMBERED CONTRACT/O appropriation date, etc.) SET FORTH IN IT				
C. THIS SUPPLEMENTAL AGREEMENT IS	ENTERED INTO PURSUA	NT TO AUTHORITY OF		
X Public Law 98-369, FAR 6	3.302-3(a)(2)(ii)	, the Secretary	's Decision N	demorandum dated
D. OTHER (Specify type of modification and		approval letter		Office of Management
E. IMPORTANT: Contractor Lis not,	X is required to sign the	nis document and retur	n2 copie	s to the issuing office.
14. DESCRIPTION OF AMENDMENT/MODIFICA	TION (Organized by UCF)	ection headings, including	solicitation/contract	subject matter where feasible.)
			•	
The purpose of this mo	dification is to	revise the sub	ject contrac	t in its entirely
(copy attached) and ex	ctend the period	or berromance	micri sebce	Jer 30,2004.
			•	
		•		
	•			
Except as provided herein, all terms and conditions	of the document reference	d in Item 9A or 10A, as he	eretofore changed, rei	nains unchanged and in full force
and effect.  15A. NAME AND TITLE OF SIGNER (Type or pr	int)	16A. NAME AND TITE	E OF CONTRACTION	NG OFFICER (Type or print)
T W. D D	i dont		71.d	
Jerry P. Draayer, Pres	LISC DATE SIGNE	James W. S	OKINNEY, CONT	racting Officer
158. CONTRACTOR/OFFEROR	130 DATE SIGNE	9-11/2-	W. Sterna	es 10-29-99
(Signature of person duthorized to sign)	10/29/99	BY / Signature	of Contracting Office	ier) 10-27-79
		10-105	S1	ANDARD FORM 30 (REV. 10-83)
NSN 7540-01-152-8070	•		Pr	escribed by GSA

NSN 7540-01-152-8070 PREVIOUS EDITION UNUSABLE

STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243

2. AMENDMENT/MODIFICATION NO.  A176 6. ISSUED BY  CODE  U.S. Department of Ene TJNAF Site Office 12000 Jefferson Avenue Newport News, VA 23606 8. NAME AND ADDRESS OF CONTRACTOR (No.  Southeastern Universit Research Association 1200 New York Avenue, Suite 710 Washington, D.C. 20005	ergy  street, county, State and State  i.es  Inc.	4. REQUISITION/PURC 7. ADMINISTERED BY			
U.S. Department of Ene TJNAF Site Office 12000 Jefferson Avenue Newport News, VA 23606 NAME AND ADDRESS OF CONTRACTOR (No Southeastern Universit Research Association 1200 New York Avenue, Suite 710	ergy  street, county, State and the cies Inc.			CODI	
U.S. Department of Ene TJNAF Site Office 12000 Jefferson Avenue Newport News, VA 23606 NAME AND ADDRESS OF CONTRACTOR (No Southeastern Universit Research Association 1200 New York Avenue, Suite 710	ergy  street, county, State and State  i.es  Inc.			CODI	
U.S. Department of Ene TJNAF Site Office 12000 Jefferson Avenue Newport News, VA 23606 NAME AND ADDRESS OF CONTRACTOR (No Southeastern Universit Research Association 1200 New York Avenue, Suite 710	ergy  street, county, State and State  i.es  Inc.	ZIP Code)	<b>W</b> )		
TJNAF Site Office  12000 Jefferson Avenue Newport News, VA 23606 NAME AND ADDRESS OF CONTRACTOR (No.  Southeastern Universit Research Association 1200 New York Avenue, Suite 710	is ineet, county, State and Since ines	ZIP Code)	<b>(4)</b>	9A. AMENDMENT OF SC	OLICITATION NO.
12000 Jefferson Avenue Newport News, VA 23606 NAME AND ADDRESS OF CONTRACTOR (No Southeastern Universit Research Association 1200 New York Avenue, Suite 710	ies Inc.	ZIP Code)	(d)	9A. AMENDMENT OF SO	DLICITATION NO.
Newport News, VA 23606 NAME AND ADDRESS OF CONTRACTOR (No. Southeastern Universit Research Association 1200 New York Avenue, Suite 710	ies Inc.	ZIP Code)	4)	SA. AMENDMENT OF SC	DLICITATION NO.
Southeastern Universit Research Association 1200 New York Avenue, Suite 710	in, street, county, State and E Lies 1, Inc.	EIP Code)	4)	9A. AMENDMENT OF SC	DLICITATION NO.
Research Association 1200 New York Avenue, Suite 710	n, Inc.	•		. •	
Research Association 1200 New York Avenue, Suite 710	n, Inc.				
1200 New York Avenue, Suite 710		•			
Suite 710	NW			98. DATED (SKE ITEM 1	1)
				10A. MODIFICATION OF	CONTRACTIONES
washington, b.c. 2000:		•		NO.	CONTRACTORDER
	<b>)</b>			DE-AC05-84E	R40150
	•		Х	10B. DATED (SEE ITEM	18)
CODE	FACILITY CODE			August 3, 19	84
11. THIS ITE	MONLY APPLIES TO	AMENDMENTS OF SC	DLIC	ITATIONS	,
The above numbered solicitation is amended a	s set forth in Item 14. The h	our and date specified for	receir	ot of Offers is extend	ded. is not ex-
IT MODIFIES  A. THIS CHANGE ORDER IS ISSUED PURS TRACT ORDER NO. IN ITEM 10A.	\$	DER NO. AS DESCRIBI	FOR	N ITEM 14. TH IN ITEM 14 ARE MAI	
B. THE ABOVE NUMBERED CONTRACT/C appropriation date, etc.) SET FORTH IN I	PROER IS MODIFIED TO R TEM 14, PURSUANT TO T	LEFLECT THE ADMINIST HE AUTHORITY OF FAI	TRAT R 43.	IVE CHANGES (such as ci 103(b).	hanges in paying office,
C. THIS SUPPLEMENTAL AGREEMENT IS	ENTERED INTO PURSUA	NT TO AUTHORITY OF:			<u> </u>
				· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
D. OTHER (Specify type of modification and			-1·	T 70 NObl	entin of Thurs
X Increase in obligation	CLON OF LANCE TH	accordance with	CI	ause 1.79, COLL	gation of Euro
E. IMPORTANT: Contractor (x) is not,		nis document and return			
4. DESCRIPTION OF AMENDMENT/MODIFICA	TION (Organized by UCF of	setion headings, including	solici	tation/contract subject mai	iter where feasible.)
•					
		SEE FOLLOWING P	AGE	S	· .
	•				
·					
			•		
			•	·	
			•		
Except as provided herein, all terms and conditions	i of the document referenced	l in item 9A or 10A, as her	retofo	)re changed, remains uncha	nged and in full force
and effect.				ore changed, remains uncha	
Except as provided herein, all terms and conditions and effect.  15A. NAME AND TITLE OF SIGNER (Type or pr		16A. NAME AND TITL	É ÓF	CONTRACTING OFFICE	R (Type or print)
and effect.  15A. NAME AND TITLE OF SIGNER (Type or pr	rint)	James W.	E OF Ski	contracting office nner, Contractir	ng Officer
and effect.		James W.	Ski	contracting office nner, Contractir	R (Type or print)

NSN 7540-01-152-8070 PREVIOUS EDITION UNUSABLE

4,

30-105 U

STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243 1. The amount obligated under this contract is increased by \$55,502,407 and is changed from \$899,123,372.92 to \$954,625,784.92. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Obligation of Funds. The amount presently obligated by the Government with respect to this contract is as follows:

Fund Type	B&R Code	Change	FY00	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	4,283,000.00	5,700,000.00	10,483,575.00
WA:	KB0102011	31,185,620.00	40,960,000.00	80,620,411.00
WA	KB0102011 (AIP A001)	975,000.00	1,300,000.00	2,800,000.00
WA	KB0102011 (GPP)	225,000.00	300,000.00	600,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (EQU)	4,350,000.00	5,800,000.00	14,330,041.00
WA	KB0102012	13,728,000.00	18,075,000.00	36,721,425.00
WA .	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA .	KB0181020	0.00	0.00	1,248,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	403,287.00	535,000.00	1,070,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	0.00	20,000.00
WA	KP1402010 (EQU)	0.00	0.00	240,000.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
	KV0101014	0.00	0.00	612,000.00
YA	KC0204010	0.00	0.00	11,943.00
, <b>YA</b>	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00

Fund Type	B&R Code	Change	FY00	To Date
YA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00	87,300.00
YA	WB0000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR94-002)	15,000.00	15,000.00	238,469.00
YA	AT2540000	0.00	0.00	5,000.00
3T :	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
<b>3</b> T	40403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
YA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	37,500.00	50,000.00	100,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	300,000.00	400,000.00	400,000.00
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
<b>2</b> Y	600305000 (OP AGR99W001)	0.00	0.00	150,000.00
SA	YN1901000	0.00	0.00	99,000.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
	TOTAL	\$55,502,407.00	\$73,135,000.00	\$954,625,784.92

<sup>2.</sup> All other terms and conditions of the contract remain unchanged and in full force and effect.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. C	ONTRACT ID	PAGE O		
	3. EFFECTIVE DATE	4. REQUISITION/PURC	HAS	E REQ. NO.	5. PROJECT	_ \	plicable)
A177	See Block 16C						
5. ISSUED BY CODE		7. ADMINISTERED BY	(If o	ther than Item 6	CODE		
U.S. Department of Ene TJNAF Site Office 12000 Jefferson Avenue Newport News, VA 23606							
B. NAME AND ADDRESS OF CONTRACTOR (No.,	street, county, State and 2	IP Code)	(4)	9A. AMENDM	ENT OF SOL	ICITATIO	N NO.
Southeastern Universiti Research Association, 1200 New York Avenue, N Washington, D.C. 20005	Inc.		×	9B. DATED (S	AC05-84E	ONTRAC R40150	•
CODE	FACILITY CODE		1	Augu	st 3, 19	84	
11. THIS ITEN	ONLY APPLIES TO	AMENDMENTS OF SC	LIC	ITATIONS			
The above numbered solicitation is amended as a tended.  Offers must acknowledge receipt of this amendment processes and 15, and returning submitted; or (c) By separate letter or telegram which ment to be received at the place design in rejection of Your Offer. If by virtue of letter, provided each telegram or letter makes reference 12. Accounting and appropriation data (Increase \$282,500)	prior to the hour and date a copies of the amenda the includes a reference to the ATED FOR THE RECEIP this amendment you desire to the solicitation and the control of t	specified in the solicitation nent; (b) By acknowledgin he solicitation and amend TOFOFFERS PRIOR TO to change an offer alrea	n or a ng red ment D TH dy su	s amended, by ceipt of this ame numbers. FAILE HOUR AND bmitted, such c	endment on ea URE OF YOU DATE SPECIF hange may be	owing met sch copy o JR ACKNO FIED MAY made by t	of the offer OWLEDG- ORESULT relegram or
	NI IECONI VITO MOD	IFICATIONS OF CON	TO 4	OTO/ODDEC		<del></del>	<del></del>
IT MODIFIES T	HE CONTRACT/ORD	IFICATIONS OF CON ER NO. AS DESCRIB	FD I	N ITFM 14	•		
A. THIS CHANGE ORDER IS ISSUED PURSU	ANT TO: (Specify author	ity) THE CHANGES SET	FOF	RTH IN ITEM 1	4 ARE MADE	IN THE	ON-
B. THE ABOVE NUMBERED CONTRACT/OR appropriation date, etc.) SET FORTH IN ITE	DER IS MODIFIED TO R	EFLECT THE ADMINIST HE AUTHORITY OF FAR	ΓRΑ1 R 43.	TIVE CHANGE: 103(b).	S (such as cha	nges in pay	ing office,
C. THIS SUPPLEMENTAL AGREEMENT IS E	NTERED INTO PURSUAI	NT TO AUTHORITY OF:	-				<del></del>
D. OTHER (Specify type of modification and a		• • • • • • • • • • • • • • • • • • • •					
Increase in obligation	of funds in acc	ordance with cla	use	≥ I.79, "C	bligatio	n of F	'unds"
E. IMPORTANT: Contractor x is not, 14. DESCRIPTION OF AMENDMENT/MODIFICAT		is document and return					
	S	EE FOLLOWING PAC	ŒS				
		·					
Except as provided herein, all terms and conditions o and effect.	f the document referenced	in Item 9A or 10A, as he	retof	ore changed, ren	nains unchang	ed and in f	iuli force
15A. NAME AND TITLE OF SIGNER (Type or prin	t)	16A. NAME AND TITL	E OF	CONTRACTIN	G OFFICER	(Type or p	rint)
	· · · · · · · · · · · · · · · · · · ·			inner, Co	ntracting		
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	168. UNITED STATES		MERIÇA		116C. DAT	re SIGNED
(Signature of person authorized to sign)		BY (Signature	of C	ontracting Office	er)	12/3	13/99

NSN 7540-01-152-8070 PREVIOUS EDITION UNUSABLE 30-105

STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243 1. The amount obligated under this contract is increased by \$282,500 and is changed from \$954,625,784.92 to \$954,908,284.92. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Obligation of Funds. The amount presently obligated by the Government with respect to this contract is as follows:

Fund Type	B&R Code	Change	FY00	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	0.00	5,700,000.00	10,483,575.00
WA	KB0102011	0.00	40,960,000.00	80,620,411.00
WA	KB0102011 (AIP A001)	0.00	1,300,000.00	2,800,000.00
WA	KB0102011 (GPP)	0.00	300,000.00	600,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (EQU)	300,000.00	6,100,000.00	14,630,041.00
WA	KB0102012	0.00	18,075,000.00	36,721,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	1,248,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	535,000.00	1,070,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA .	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	` 0.00	0.00	13,000.00
WA	KP1402010	0.00	0.00	20,000.00
WA	KP1402010 (EQU)	0.00	0.00	240,000.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
ΥA	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00

Fund Type	B&R Code	Change	FY00	To Date
YA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00	87,300.00
YA	WB000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
• •	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR94-002)	7,500.00	22,500,00	245,969.00
YA	AT2540000	0.00	0.00	5,000.00
<b>3T</b>	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
<b>3T</b>	40403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
YA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	50,000.00	100.000.00
TC	820101000 (OP)	0.00	0.00	599,853,00
TC	DP0404012 (OP)	0.00	0.00	957,864,00
TC	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	0.00	400,000.00	400,000,00
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000,00
2Y	600305000 (OP AGR99W001)	0.00	0.00	150,000.00
SA	YN1901000	0.00	0.00	99,000.00
* WA	EL1703000(OPFWP #EL17039)	(25,000.00)	(25,000.00)	0.00
	TOTAL	\$282,500.00	\$73,417,500.00	\$954,908,284.92

<sup>2.</sup> All other terms and conditions of the contract remain unchanged and in full force and effect.

AMENDMENT OF SOLICITATION NO. 1. PREVIVED ATE A REQUISITION/PLACITISE REQ. NO. 1. PROJECT NO. 61 applicably A178  A SALED BY CODE	<b>6</b> 757 269 7146 D0	E/TJNAP SITE OFFI		02/01/00 14:19 P.002/006
A ALTR  See Block 16C  I.S. Department of Energy U.S. AMERICANSON OF CONTRACTOR (No., sheat, county, Sies and LIP Code)  Southbeastern Universities Research Association, Inc. 1200 New York Avenue, NW Washington, D.C. 20005  [FACILITY CODE [FACILITY CODE [I.S. DEPARTMENT]  DEPARTMENT OF ENERGY U.S. DEPARTMENT OF SOLICITATIONS  DEPARTMENT OF ENERGY U.S. DEPARTMENT OF SOLICITATIONS  I.S. DEPARTMENT OF CONTRACTOR (No. and data specified in the solicitation or as amended, by one of the following methods in the Complete of this amendment prior to the hour and data specified in the solicitation or as amended, by one of the following methods in the Complete of this amendment prior to the hour and data specified in the solicitation or as amended, by one of the following methods in the Complete of this amendment prior to the hour and data specified in the solicitation or as amended, by one of the following methods in the Complete of this amendment prior to the hour and data specified in the solicitation or as amended, by one of the following methods in the solicitation of this amendment prior to the hour and data specified in the solicitation or as amended, by one of the following methods in the solicitation of the s	AMENDMENT OF SOLICITATION	I/MODIFICATION O	F CONTRACT	1. CONTRACT ID CODE PAGE OF PAGES
U.S. Department of Energy U.S. Department of U.S. Department o	2. AMENDMENT/MODIFICATION NO. A178	1	4. REQUISITION/PURC	ASE REQ. NO. 5. PROJECT NO. (If applicable)
U.S. Department of Energy UNAP Site Office 12000 Jefferson avenue Newport News, VR 23606 6. HAME AND ADDRESS of CONTRACTOR (No., thesis, county, Siele and EB Guds) Southheastern Universities Research Association, Inc. 1200 New York Avenue, NN Washington, D.C. 20005  If Active Code  In This ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS  Offer must extended precipit of the amendment prior to the four and date specified for receipt of Offers I is extended. In not extended, the prior of the following members of the prior of the following members of the prior to the following members of the prior to the following the submitted of the prior to the following members of the prior to the copy of the following members of the prior to the copy of the following members of the prior to the copy of the following members of the prior to the copy of the following members of the prior to the copy of the following members of the following members of the prior to the copy of the following members of the followi	6. ISSUED BY CODE		7. ADMINISTERED BY	If other than Item 6) CODE
Southeastern Universities Research Association, Inc. 1200 New York Avenue, NW Washington, D.C. 20005    De-ACOS-84ER40150	U.S. Department of Energy TJNAF Site Office 12000 Jefferson Avenue			
Research Association, The. 1.200 New York Avenue, NW Washington, D.C. 20005    DE-ACOS-84ER40150	6. NAME AND ADDRESS OF CONTRACTOR (No.	, street, county, State and Z	IP Code)	() 9A. AMENDMENT OF SOLICITATION NO.
The above numbered solicitation is emended as set forth in Item 14. This internal 14	Research Association, 1200 New York Avenue, N	Inc.		10A. MODIFICATION OF CONTRACT/ORDER DE-AC05-84ER40150
The above numbered solicitation is smended as set forth in Item 14. The hour and date specified for receipt of Offers  is extanded. Is not extended.  If a ground in the solicitation of as smended, by one of the following methods:  If a ground in the solicitation of as smended, by one of the following methods:  If a ground in the solicitation and an advantage of the amendment plant in the solicitation and amendment on seek copy of the office methods of the specified in the solicitation and amendment on seek copy of the office method in the solicitation and amendment on seek copy of the office of the specified in the solicitation and amendment on seek copy of the office of the specified in the solicitation and seek copy of the office of the solicitation and seek copy of the office of the solicitation and seek copy of the office of the solicitation and seek copy of the office of the solicitation and seek copy of the office of the solicitation and this amendment, and is received prior to the opening flour and date specified.  It is a copy of the office of the opening flour and date specified in the solicitation and this amendment, and is received prior to the opening flour and date specified.  It is a copy of the office of the opening flour and date specified in the solicitation and seek of the seek of prior to the opening flour and date specified.  It is a copy of the office of the opening flour and seek of the opening flour and seek of the seek of the opening flour and se	CODE	FACILITY CODE		· 1 - ·
Contract exhaust acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:  [6] By completing issues B and 15, and returning	11. THIS ITE	M ONLY APPLIES TO A	MENDMENTS OF SO	LICITATIONS
SEE FOLLOWING PACES  Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  ISA. NAME AND TITLE OF SIGNER (Type or print)  IGA. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  ISC. DATE SIGNED 16B. UNITED STATES OF AMERICA.  16C. DATE SIGNED  1-31-03	12. ACCOUNTING AND APPROPRIATION DATA  Increase \$380, 152  13. THIS ITEM AI IT MODIFIES  V) A. THIS CHANGE ORDER IS ISSUED PURS TRACT ORDER NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/O appropriation date, atc.) SET FORTH IN IT C. THIS SUPPLEMENTAL AGREEMENT IS  D. OTHER (Specify type of modification and X Increase in obligation of  E. IMPORTANT: Contractor X is not,	ree to the solicitation and the (If required)  PPLIES ONLY TO MODITHE CONTRACT/ORD UANT TO: (Specify authority)  FURTHERED INTO PURSUANT TO THE ENTERED INTO PURSUANT authority)  funds in accordation is required to sign the contraction of the	IFICATIONS OF CON ER NO. AS DESCRIBE BY THE CHANGES SET EFLECT THE ADMINIST HE AUTHORITY OF FAR INT TO AUTHORITY OF: INCE WITH CLAUSE is document and return	TRACTS/ORDERS, ED IN ITEM 14. FORTH IN ITEM 14 ARE MADE IN THE CON- RATIVE CHANGES (such as changes in paying office.  1.79, "Obligation of Funds"  copies to the issuing office.
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  ISA, NAME AND TITLE OF SIGNER (Type or print)  IGA, NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  IGA, NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  IGA, NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  IGA, NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  IGA, NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  IGA, NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  IGA, NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  IGA, NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  IGA, NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  IGA, NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  IGA, NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  IGA, NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  IGA, NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  IGA, NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  IGA, NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  IGA, NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  IGA, NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	14. DESCRIPTION OF AMERICAN (MODIFICA	tion forgunizes by OCT se	CILOT HERMINGS, MANNEY-S	
15A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED 16B. UNITED STATES OF AMERICA.  16C. DATE SIGNED 16B. UNITED STATES OF AMERICA.  1-31-03	•	SEE F	OLLOWING PAGES	
15A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED 16B. UNITED STATES OF AMERICA.  16C. DATE SIGNED 16B. UNITED STATES OF AMERICA.  1-31-03	1		·. ,	
158. CONTRACTOR/OFFEROR 15C. DATE SIGNED 16B. UNITED STATES OF AMERICA 16C. DATE SIGNED  BY WWW. CINNET 1-31-03	and affact.		IGA, NAME AND TITLE	OF CONTRACTING OFFICER (Type or print)
BY Jank W. Kinney 1-31-00	150 CONTRACTOR/OFFERDR	ISC DATE SIGNER	UMINI II	OKAMERICA 150. DATE SIGNER
	(Signature of person authorized to sign)		By Janes W	Kinner 1-31-00

Contract No. DE-AC05-84ER40150 Modification No. A178 Page 2 of 3

1. The amount obligated under this contract is increased by \$380,152 and is changed from \$954,908,284.92 to \$955,288,436.92. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Obligation of Funds. The amount presently obligated by the Government with respect to this contract is as follows:

Fund Type	B&R Code	Change	FY00	To Date
		0.00	0.00	50,000.00
TE	EW3110022 KA0301000	0.00	0.00	90,000.00
WA	KA0101000	. 0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA WA	KB0101000	0.00	0.00	148,882,000.00
WA WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	(20,000.00)	5,680,000.00	10,463,575.00
WA	KB0102011	(155,000.00)	40,805,000.00	80,465,411.00
WA	KB0102011 (AIP A001)	0.00	1,300,000.00	2,800,000.00
WA	KB0102011 (GPP)	0.00	300,000.00	600,000.00
WA	KB0102011 (EQU)	0.00	0.00	00.0
WA	KB0102012 (EQU)	0.00	6,100,000.00	14,630,041.00
WA	KB0102012	(65,000.00)	18,010,000.00	36,656,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA .	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	1,248,000.00
WA .	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	535,000.00	1,070,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	00.0	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00 -	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	00.0	13,000.00
WA	KP1402010	0.00	0.00	20,000.00
WA	KP1402010 (EQU)	0.00	0.00	240,000.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	, 0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
YA	KC0204010	0.00	0.00	11,943.00
YA '	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00

Contract No. DE-AC05-84ER40150 Modification No. A178 Page 3 of 3

Fund Type	B&R Code	Change	FY00	To Date
YA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00	87,300.00
YA	WB0000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y '	650102000 (AGR94-002)	7,500.00	30,000,00	253,469.00
YA	AT2540000	0.00	0.00	5,000.00
<b>3</b> T	400403309 (OP AGR000096)	0.00	0.00 -	11,744,355.00
3T	40403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
YA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	50,000.00	100,000.00
TC	820101000 (OP)	250,000.00	250,000.00	849,853.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	0.00	400,000.00	400,000.00
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	338,000.00	338,000.00	488,000.00
SA	YN1901000	(348.00)	(348.00)	98,652.00
WA	EL1703000(OPFWP #EL17039)	25,000.00	0.00	25,000.00
	TOTAL	\$380,152.00	\$73,797,652.00	<b>\$955,288,436.92</b>

<sup>2.</sup> All other terms and conditions of the contract remain unchanged and in full force and effect.

AMEL DMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CC	1. CONTRACT ID CODE		PAGE	OF PAGES	
2. AMENDMENT/MODIFICATION NO.   3. EFFECTIVE DATE   4. REQUISITION/PUR			HASE	REQ. NO.	5. PROJECT	NO. (If a	59
M1.79	10/1/99						,
6. ISSUED BY CODE		7. ADMINISTERED BY	(If ot	her than Item (	CODE		
U.S. Department of Energy TUNAF Site Office 12000 Jefferson Avenue Newport News, VA 23606					3332		
8, NAME AND ADDRESS OF CONTRACTOR (No.	, street, county, State and	ZIP Code)	(d)	9A. AMENDN	ENT OF SO	LICITATI	ON NO.
Southeastern Universit Association, Inc.	ies Research	•		98. DATED (	SEE ITEM 11	,	
1320 19th Street, NW Suite 800				10A. MODIFI	CATION OF	CONTRA	CT/ORDER
Washington, D.C. 20036	-1610		x		-84ER401		
CODE	TEACH ITY CODE	······································	-	10B. DATED			
CODE 11 THIS ITE	MONLY APPLIES TO	AMENIDMENTS OF S	0110		3, 1984		
					7		1
The above numbered solicitation is amended as tended.	set forth in Item 14. The r	nour and date specified for	rreceu	pt of Offers L	is extend	led, l	is not ex-
(a) By completing Items 8 and 15, and returningsubmitted; or (c) By separate letter or telegram wh MENT TO BE RECEIVED AT THE PLACE DESIG IN REJECTION OF YOUR OFFER. If by virtue cletter, provided each telegram or letter makes refere 12. ACCOUNTING AND APPROPRIATION DATA	nich includes a reference to NATED FOR THE RECEI of this amendment you desi nce to the solicitation and	the solicitation and amend PT OF OFFERS PRIOR T ire to change an offer alrea	dment TO TH ady su	numbers. FAI E HOUR AND bmitted, such (	LURE OF YO DATE SPEC Change may b	OUR ACK IFIED MA e made by	NOWLEDG- AY RESULT telegram or
N/A	(i) requirea)						
13. THIS ITEM A	PPLIES ONLY TO MOD	DIFICATIONS OF CO	NTRA	CTS/ORDE	RS,	·	
A. THIS CHANGE ORDER IS ISSUED PURS	THE CONTRACT/ORI				14 ARE MAE	E IN THE	E CON-
B. THE ABOVE NUMBERED CONTRACT/C appropriation date, etc.) SET FORTH IN I							
C. THIS SUPPLEMENTAL AGREEMENT IS In accordance with clause X Assessment and Performance D. OTHER (Specify type of modification and	H.32 entitled""( Evaluation and authority)	ise of Objective	e St Perf	andards c ormance M	f Perfo leasure	mance Review	"Self
E. IMPORTANT: Contractor is not,  14. DESCRIPTION OF AMENDMENT/MODIFICA	is required to sign tation (Organized by UCF	this document and retu	rn	copi	es to the iss	-	
1. The purpose of the by Performance - Evaluation Plan	Based Metrics) i						
2. All other terms	and conditions r	emain unchanged	and	in full	force a	nd eff	ect.
		х.					
Except as provided herein, all terms and condition and effect.	s of the document reference						
15A. NAME AND TITLE OF SIGNER (Type or p John Mullin	rint)	16A. NAME AND TIT	LE O	F CONTRACT	ING OFFICE	.К (Туре (	or print)
Sr. Vice-President, Opera				. Skinner	, Contra		
15B. CONTRACTOR/OFFEROR  COULE  (Signature of person authorized to sign	-/22/0	BY (Signatu	48	AMERICA Contracting Of	ficer)		-23-00
A lesituature of berson anthorized to sign	,	1 (5.8.010					

# JEFFERSON LAB FY2000 APPENDIX B

# JEFFERSON LAB APPENDIX B TABLE OF CONTENTS

PER	REFORMANCE EVALUATION OVERVIEW	1
Sco	ORING METHODOLOGY	4
Co	NTRACT PERFORMANCE ANNUAL APPRAISAL TIMELINE	6
Tai	BLE B.1: PERFORMANCE OBJECTIVES AND THEIR KEY INDICATORS	7
	Outstanding Science and Technology 1A. Overview	
	RELIABLE OPERATIONS  2A. OVERVIEW2B. PERFORMANCE EVALUATION PLAN	
	PRODUCTION OF SCIENTIFIC AND TECHNICAL MANPOWER  3A. OVERVIEW	
	CORPORATE CITIZENSHIP  4A. OVERVIEW	
5.	QUALITY PERFORMANCE IN ENVIRONMENT, HEALTH, AND SAFETY 5A. OVERVIEW	30
6.	QUALITY OF BUSINESS AND ADMINISTRATIVE PRACTICES 6A. OVERVIEW	
7.	RESPONSIBLE INSTITUTIONAL MANAGEMENT OVERVIEW  7A. OVERVIEW	55

# Performance Evaluation by Performance-Based Metrics Overview

#### General

This Appendix sets forth the basis upon which an evaluation of the performance of the Thomas Jefferson National Accelerator Facility (otherwise known as "Jefferson Lab;" formerly CEBAF) performance will be based as required by contract Article 6 (Use of Objective Standards of Performance, Self Assessment and Performance Evaluation) and Article 7 (Performance Measure Review) of the contract. The evaluation procedure described below utilizes a set of "key indicators" which will broadly measure the laboratory's performance in seven critical areas. Associated with most "key indicators" (both peer reviews and performance metrics) is a set of "secondary indicators" which will measure the laboratory's performance in a more detailed way and extend the validity of each respective "key indicator." As it relates to Article 6 of the contract and the peer review process for the Science and Technology, Business and Administrative Practices and Responsible Institutional Management sections of the Performance Evaluation Plan, the parties agree that: (i) the panel will be selected by mutual agreement; and (ii) DOE will concur with the official charge to the panel prior to issuance by SURA.

Table B.1, Performance Objectives and Their Key Indicators, shows the seven performance objectives of this contract and their corresponding key indicators. Following this table are seven sections elaborating on each key indicator and listing the associated secondary indicators with established performance goals, where appropriate. A system for scoring performance in the seven categories and for integrating these scores into an overall evaluation rating for each performance period is provided under the subheading "Scoring Methodology." The parties agree to adhere to this system in arriving at the overall evaluation of the laboratory's performance against these measures. The schedule for performing the Laboratory evaluation is provided under the subheading "Appendix B Annual Appraisal Timeline." It is the intent of the parties to strictly adhere to this schedule although either party may request a revision to the proposed schedule.

For FY00, performance measures have been established in accordance with the annual reassessment process outlined in the paragraph entitled "Periodic Reassessment" and the FY99 results. The FY00 performance goals have been set based on: (i) the outcome of the FY99 performance measures in relation to the FY99 performance goals; and, (ii) other pertinent data.

### **Goal Setting**

The primary considerations for selecting performance measures and setting goals at Jefferson Lab are:

• Performance measures should provide accurate, valid measures of performance in areas of importance to DOE and Laboratory management.

- The total set of measures should reflect priorities of DOE and Laboratory management and a proper balance of cost-benefit and return-on-investment.
- Setting goals that optimize the overall Laboratory mission frequently yields a more
  desirable result than goals which stress maximum quantitative performance in narrow
  areas. For instance, simply pushing for maximum accelerator availability might penalize
  highly specialized or difficult experiments with high scientific merit or impede accelerator
  development. In other areas, pushing for unreasonably high quantitative goals might
  divert limited resources from other more mission-oriented activities with little or no
  benefit.
- The broader the base of comparison of Jefferson Lab's performance with similar institutions, the greater the possibility of learning improved ways of performing activities and how important it is to perform those activities.
- Comparison with other facilities is most effective when objectives, constraints and hazards at the facilities are similar, or normalization is relatively simple.
- The performance measures, the comparison base, and the goals should be selected keeping in mind the ease of obtaining current comparison data.

Given these considerations, the DOE and SURA have agreed that the primary use of performance measures will be to compare the Laboratory's performance against the mission objectives of the Laboratory taking into account the maturity of its various programs (e.g., the criteria to achieve an "outstanding" rating for a mature program would be different from that for a young program). The allocation of points among the performance objective categories is the first indication of this value judgment. The DOE/Laboratory Performance Measurement Teams were advised to select as broad a comparison area as practical in order to maximize the opportunity to improve systems and processes, but to define the performance measures and set the goals with the intent of enhancing the mission of the Jefferson Lab. While this approach requires a considerable exercise of judgment and somewhat limits a direct comparison with other facilities based on score, it presents the best opportunity to improve the overall performance of the Laboratory. This approach results in a mixture of broad performance measures where Laboratory performance can be quantitatively compared with other DOE and/or industrial facilities (such as property loss ratios), and measures that are much more unique to the mission of this Laboratory (such as Reliable Operations, Production of Scientific and Technical Manpower and Technology Transfer). A practice used extensively at Jefferson Lab that combines broad measures with measures very closely tailored to the mission of the Laboratory is the Peer Review concept. Depending on the function or category under review, technical and/or management personnel with similar responsibilities at other facilities review the Laboratory's performance as prescribed in a carefully constructed charter and arrive at a score or adjectival rating for that function or category. This practice makes available the experience and expertise of nationally recognized experts in various fields and provides maximum opportunity for knowledgeable feedback leading to performance improvement.

#### **Performance Report**

The Contractor will report on the results of its performance as defined by Appendix B at the end of each fiscal year. This Performance Report should include for each performance category, in addition to actual performance metric scores and/or peer review results, an overview self-assessment which includes: a brief description of major achievements; significant strengths and weaknesses; the status of responses to recommendations from the Peer Reviews, an assessment of whether the performance measures were valid indicators of performance; other lessons learned; principal areas of emphasis for improvement for the following fiscal year; and any recommended changes in performance measures or goals for the following fiscal year. A discussion of the Laboratory's overall performance and the major areas across the entire Lab that SURA perceives as the most important focus areas for the upcoming performance period will also be included.

The Department will use the Contractor's Performance Report along with other inputs to evaluate the Contractor's overall performance for each evaluation period. These other inputs include observations and results of inspections conducted by the Site Office staff, and programmatic/functional appraisals and reviews coordinated by the Site Office. As a means of incorporating these additional considerations, the parties have agreed that the Contracting Officer will develop an overlay performance report which will supplement the product of the performance measure process. This report will capture the highlights of the DOE Site Office observations/reviews, results of DOE appraisals, as well as other important information (including mitigating factors or events that may be outside the control of the contractor) that will be used to balance the overall performance assessment for the year. This overlay report will include a discussion of performance against regulatory and contract requirements that were not defined in terms of performance measures. The parties agree that the results from these assessment inputs could change the category rating and/or overall performance rating (up or down) by as much as one performance level.

#### Periodic Reassessment

As described in Article 6, the parties also agree to a reassessment of these performance measures prior to the beginning of each evaluation period. In particular, the parties agree to:

- 1. Assess the validity of each respective indicator as an accurate and meaningful reflector of performance (using the detailed secondary indicators and other criteria) and to replace them with more appropriate indicators if necessary,
- 2. Consider adding to or subtracting from the complement of secondary indicators in order to more meaningfully and accurately track vital performance objectives or to correct deficiencies in the more global key indicators,
- 3. Consider adding or subtracting key indicators or secondary indicators as appropriate in response to the evolving requirements of DOE; in particular, both parties undertake to replace DOE Directives whenever feasible by performance metrics.

# **Scoring Methodology**

The parties have agreed to the following scoring methodology:

A. <u>POINT ALLOCATION</u>: A 1000-point scale will be distributed among the seven performance objective categories as follows:

1. Outstanding Science and Technology	300 points
2. Reliable Operations	250 points
3. Production of Scientific and Technical Manpower	75 points
4. Corporate Citizenship	75 points
5. Quality Performance in EH&S	100 points
6. Business and Administrative Practices	100 points
7. Responsible Institutional Management	100 points

Within each of the seven performance objective categories, the individual points have been allocated between the key indicator and the secondary indicators.

B. <u>POINT SCALE</u>: A grading scale will be used for rating each category and the overall performance evaluation as follows:

Adjectival Rating	% of Points
Outstanding	90% to 100%
Excellent	80% to < 90%
Good	70% to < 80%
Marginal	60% to < 70%
Unsatisfactory (Poor)	50% to < 60%
Unsatisfactory (Failing)	<50%

After applying the appropriate percentage to the points assigned for each indicator, accuracy at the one decimal point level will be retained.

- C. <u>RATING EACH CATEGORY</u>: The following weighted average approach will be used to rate each of the seven performance objective categories:
  - 1. For each performance measure, multiply performance percent achieved times the assigned points to arrive at the awarded points.
  - 2. Sum the assigned points and sum the awarded points for all performance measures to arrive at a total for each (i.e., total assigned points and total awarded points).
  - 3. Divide the total awarded points for the category by the total assigned points for the category and convert to a percentage.

4. Arrive at an overall adjectival rating for the category by using the point scale in paragraph (B) above.

In years where a new indicator which requires baselining might be added to the set, the Laboratory evaluation score will be based on paragraph (D) below

- D. <u>OVERALL PERFORMANCE EVALUATION:</u> The following methodology will be used to determine the overall performance rating:
  - 1. Sum the assigned points and sum the awarded points for each performance measure being scored in the performance period. (For odd years, the same score achieved in Responsible Institutional Management from the prior year will be carried forward and included in the performance evaluation calculation).
  - 2. Divide the awarded points by the assigned points. This percentage of 1000 is the laboratory's overall score for the evaluation period. This percentage is also used in Step #5, Section C, to provide a score for the baselined areas.
  - 3. Arrive at the overall adjectival performance rating for the contract in accordance with Section B, above, on the point scale.
  - 4. Incorporate the results of DOE Site Office overlay performance report as described in the paragraph entitled "Performance Report" on p.3 of this Appendix.

# **Contract Performance Annual Appraisal Timeline**

DATE	ELEMENT
7/1/FY-1	Functional teams from DOE and SURA develop Performance Metrics.
9/1/FY-1	Performance Metrics due to the DOE Site Office Manager.
10/1/FY	DOE transmits final Performance Metrics to SURA.
4/15/FY	DOE performs mid-year status review.
9/30/FY	Evaluation period ends.
10/31/FY+1	SURA submits Performance Report
11/15/FY+1	DOE develops draft evaluation and transmits to SURA.
12/1/FY+1	SURA submits comments on draft evaluation.
12/15/FY+1	DOE transmits final report to SURA.

Table B.1: Performance Objectives and Their Key Indicators

Objective	Key Indicator	Points
1. Outstanding Science and Technology	Peer Review	300
2. Reliable Operations	Delivered Physics Research Operations	250
3. Production of Scientific and Technical Manpower	<ul> <li>Number of Student Years on Jefferson Lab-Related Research Activities</li> <li>Total Number of Advanced Degrees Based on Jefferson Lab Research</li> </ul>	75
4. Corporate Citizenship	Public Participation     Non-DOE Investment in Jefferson     Lab Initiatives	75
5. Quality Performance in Environment, Health & Safety	Cost of Injuries     Environmental Permit Exceedences	100
6. Quality of Business and Administrative Practices	Peer Review	100
7. Responsible Institutional Management	Peer Review	100
		1000

# 1. Outstanding Science and Technology 1A. Overview

Objective: To produce outstanding science and technology.

Key Indicator (300 points):

#### 1.0 Peer Review

General Charge to the Peer Review Panel: Using inputs from other science and technology program managers who sponsor significant work at Jefferson Lab and after consultation with SURA representatives, the DOE Division of Nuclear Physics (DNP) will issue the charge to the panel. Principally the charge will be to evaluate Jefferson Lab's contribution to the goals of the National Nuclear Physics Program, to rate the Jefferson Lab nuclear physics program relative to that of other international laboratories, and to evaluate the likely contributions of the laboratory's proposed future program to this field and to science in general. The panel would also be asked to assess the effectiveness of laboratory operations and the overall scientific productivity of the laboratory.

As part of this charge, the panel would be specifically asked to examine the laboratory's Advanced Accelerator Research and Development efforts and assess whether they are properly focused to support current and future laboratory and national goals. The charge to the panel would also include a request that it evaluate the quality of the laboratory's applied science and technology programs, assess whether the current efforts directed toward them by the laboratory are justified, and whether the planned future direction and magnitude of these efforts appear appropriate relative to the primary mission of the laboratory.

In addition, the panel would be requested to evaluate laboratory management's use of discretion (where such discretion exists) in allocating resources among laboratory science and technology priorities and whether prudent judgement was exercised in making such allocations.

More detailed guidance will be developed based on special circumstances at the time of the review.

Frequency and Duration: Annually, two days plus one day for report writing and closeout.

<u>Panel Composition</u>: A cross-cutting panel (including a chairperson) of internationally recognized scientists and engineers will be appointed by the DNP following consultation with other program managers who fund significant program activities at the laboratory and with SURA.

Prior to the selection of the panel members, the composition of the panel may be adjusted, by mutual agreement of SURA and DOE, to match the programs and activities of the Laboratory and the special circumstances to be addressed by the review.

Conduct of the Review: The Director of DNP will select a chairperson (in consultation with SURA) and develop an agenda for the review based on the charge to the panel (in consultation with the chairperson and SURA).

In addition to the panelists appointed by the DNP, the Director of DNP and/or others whom he may designate will also participate in the review as a member of the panel. Consistent with the principles of the DOE-+SURA partnership that are expressed in this contract, a representative selected by SURA will observe the deliberations of the panel and participate in panel discussions, including the executive sessions. This will assist SURA in performing its corporate oversight of the laboratory.

Each panel member will be asked to submit individual reports to the chairperson following the review. The chairperson will submit a report to the Director of DNP that provides his/her personal assessment of the review and the review results and transmits the individual reports from the other panel members. The Director of DNP will make the reports available to SURA.

#### 1B. Performance Evaluation Plan

#### Introduction:

It is widely accepted that while various numerical indicators can be useful as inputs, the overall scientific and technical quality of a research institution is best judged by peer review. Among the more reliable criteria on which the judgement of the Peer Review Panel should be based are:

- 1. Quality of the research program as evidenced by seminal experimental or theoretical results.
- 2. Effectiveness of operations (including an assessment from users) in support of the research program
  - Major experimental or technological innovations resulting from work at Jefferson Lab.
- 3. Citations of papers or articles based on research carried out at Jefferson Lab and invited presentations at major international conferences based on Jefferson Lab results.
- 4. Other criteria deemed to be relevant will also be examined.

#### 1.0 Peer Review

Scoring: Based on the individual reports of the panel members (including the chairperson), his own assessment, and following consultation with SURA, the Director of the Division of Nuclear Physics will assign an adjectival rating to the performance of the laboratory in producing Outstanding Science and Technology. A percentage of Key Indicator points within the range associated with the assigned rating will be awarded in accordance with the following table.

Adjectival Rating	% of Assigned Points
Outstanding	90 to 100
Excellent	80 to < 90
Good	70 to < 80
Marginal	60 to < 70
Unsatisfactory (Poor)	50 to < 60
Unsatisfactory (Failing)	<50

## 2. Reliable Operations

## 2A. Overview

Objective: Achieve reliable performance of the accelerator and detectors at required specifications to ensure the scientific success of the Laboratory.

#### **Key Indicator (150 points):**

2.0 Delivered physics research operations, as determined by the number of hours of simultaneous availability of the beams and the experimental equipment delivered.

#### Secondary Indicators (100 points):

- 2.1 Beam availability, as defined by the ratio of the time the beam is useful for the intended research program to the time it is scheduled for use during that period. [25 points].
- 2.2 Experimental equipment availability, as measured by the ratio of the time the equipment is operational at its design specifications in a particular configuration to the time it is scheduled for use in that configuration. [25 points]
- 2.3 The effectiveness of the scheduling process, as determined by the time that was scheduled to have elapsed between the publication of a firm accelerator schedule and the experiment's scheduled start date divided by the actual time between publication of a firm accelerator schedule and the date an experiment begins taking data. [25 points]
- 2.4 Overall operations effectiveness, defined as the ratio of the total time the accelerator is operated for physics (in weeks) to the total accelerator operations (in weeks) that was identified as the goal for the year during negotiations of the laboratory's operations budget. [25 points]

#### 2B. Performance Evaluation Plan

#### Introduction:

Quantitative evaluation of performance in this area is measured against peak performance goals to be declared at the beginning of each evaluation period. A peak performance goal is one that corresponds to the maximum desirable performance in each area given anticipated technical and fiscal constraints. The Laboratory's long range "asymptotic" peak performance goals for each of the performance measures have been set by a joint laboratory-DOE team and will be reviewed by the team on an annual basis. These goals are listed in Table 2.1.

Table 2.1: Long Range Peak Performance Goals

Performance Measure	Indicator	Total Points Assigned	Description	Asymptotic Peak Performance Goal FY2001+
2.0	Delivered Physics Research Operations	150	Hours of physics research operations for which both beam and experimental equipment are simultaneously available	100% of research operations goal
2.1	Beam Availability	25	Percent of the scheduled time for which the beam is useful	80%
2.2	Experimental Equipment Availability	25	Percent of the scheduled time that the experimental equipment is operational	80%
2.3	Effectiveness of the Scheduling Process	25	How closely an experiment actually starts taking data relative to the scheduled start date	100%
2.4	Overall Operations Effectiveness	25	Percent of planned weeks of operations for physics that is delivered	100%

For secondary indicators 2.3 and 2.4, these peak performance goals apply immediately. For secondary indicators 2.1 and 2.2, the annual peak performance goals should reflect the anticipated turn-on curve for operations. Since the peak performance goal for the key indicator 2.0 is a function of secondary indicators 2.1 and 2.2, it too will reflect the anticipated turn-on curve for operations. Thus, the peak performance goals are adjusted as follows:

Table 2.2: Turn-On Peak Performance Goals\* (PPG) for Indicators 2.1 and 2.2

Fiscal Year	Peak Performance Goals for Beam Availability (2.1)  A <sub>accel-goal</sub> (See note below for adjustments)	Peak Performance Goals for Individual Halls included in the Base Experimental Equipment Availability Metric (2.2)  A <sub>i-goal</sub>
FY98	78%	78% (Hall C) 70% (Hall A) 55% (Hall B)
FY99	80%	80% (Hall C) 78% (Hall A) 70% (Hall B)
FY00	80%	80% (Halls A, C) 78% (Hall B)
+FY01-beyond	80%	80% (all Halls)

<sup>\*</sup> before any adjustment for planned new capabilities

Once schedules are established for the three Halls in each year, the Key Indicator 2.0 peak performance goal will be determined by the product of the scheduled hours of beam operations for research, the hall and beam availabilities, and the multiplicity goal (# of halls that are to be operating simultaneously, on average). As the formula for determining the Key Indicator depends on quantities defined for the secondary indicators, we postpone a discussion of the key indicator until later in this section.

The nominal goals for the beam availability peak performance indicator 2.1 and for the individual hall experimental equipment availabilities that are folded together for the experimental equipment availability peak performance indicator 2.2 follow the anticipated curve for the accelerator learning curve (55% in the first year, 70% in the second, 78% in the third, and 80% in the fourth year and beyond). This same learning curve will be applied in the future whenever the accelerator or one of the experimental halls undergoes a major upgrade.

In addition, whenever a significant new capability is being commissioned (e.g., a substantial energy upgrade for the accelerator or a substantial addition to the hall base equipment) then the availability goal for the relevant capability shall be reduced by 10% for one quarter (corresponding to a reduction of 2.5% in the year's PPG for availability). The Lab and the DOE Site Office must both agree on any such reduction in the availability goal as part of the review of the goals at the beginning of the fiscal year. If the development of the new capability is later rescheduled and does not occur within the performance period, the reduction in the availability goal will be rescinded.

In FY00, we anticipate one such substantial upgrade for the accelerator: operation at  $6.0 \, \text{GeV} - \text{fully } 50\%$  above the design value. Therefore the goal for the accelerator in FY00 is reduced by 10% for one quarter leading to a new goal of: 80% - (0.25 \* 10%) = 77.5%. Each of the three experimental halls has major installation work planned in FY00. In Hall A the detector packages will be swapped between the hadron and electron spectrometers to overcome maximum field limitations of the hadron spectrometer. Hall B will have two major installation experiments this year (the polarized target for eg1 running and the RadPhi experiment - E94-016). Hall C will also have two major installations this year, the HNSS and  $G_n^E$ . As a consequence, the hall availability goals should be reduced: for Hall A by 2.5% and for Halls B and C by 5%. These adjustments lead to the values listed in Table 2.3 below. For FY00, the peak performance goals are therefore:

Table 2.3: Peak Performance Goals for FY00

Indicator	Description	FY00 Peak Performance Goal
2.0	Hours of physics research operations for which both beam and experimental equipment are simultaneously available as scheduled	Calculate using the equation below
2.1	Percent of the scheduled time for which the beam is useful	77.5%
2.2	Percent of the scheduled time that the experimental equipment is operational	Calculate using the equation below and the individual hall availability goals:  75% Hall C (E <sub>c-goal</sub> )  77.5% Hall A (E <sub>a-goal</sub> )  73% Hall B (E <sub>b-goal</sub> )
2.3	How closely an experiment actually starts taking data relative to the scheduled start date	100%
2.4	Percent of the planned weeks of operations for physics that is delivered	100%

For each indicator, the relationship between the percent of peak performance goal that is achieved and the percent of the maximum possible points for that indicator to be awarded will be:

- If actual performance is at least 50% of agreed peak performance goal:
   % of points awarded = % of peak performance goal achieved (no incremental points are awarded if the performance exceeds the peak performance goal).
- 2. If actual performance is less than 50% of agreed peak performance goal:
  % of points awarded = 2 \* (% of peak performance goal achieved 25%)
- If actual performance is less than 25% of agreed peak performance goal: No points awarded.

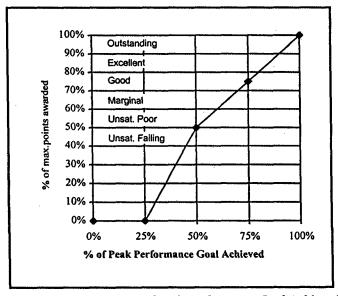


Fig. 2.1: Scoring as a % of Peak Performance Goal Achieved

To precisely quantify the peak performance goals for each performance metric, we begin by making the following definitions:

Table 2.4: Definitions

Quantity	Definition
Si	The total number of hours assigned in the published schedule for experiments in Hall i
B <sub>i</sub>	The beam availability for experiments in Hall i, as determined by the criteria defined below
$S_{ad}$	The total number of hours of accelerator development activities scheduled for the accelerator
$B_{ad}$	The beam availability for accelerator development activities as determined by criteria defined below
E <sub>i</sub>	The experimental equipment availability for experiments in Hall i as determined by the criteria defined below
D <sub>i</sub>	The fraction of the total time scheduled for experiments in Hall i when both the beam and experimental equipment are available and being used to carry out the planned scientific program
$\mathrm{D}_{ad}$	The fraction of the total time scheduled for accelerator development activities that both the beam and the relevant test equipment are available and being used to carry out the planned development activities
t <sub>bs</sub>	The date on which a firm beam schedule is released
t <sub>ss</sub>	The date on which an experiment is scheduled to begin taking data as published in the firm beam schedule
t <sub>sa</sub>	The actual date on which an experiment begins taking data
S <sub>beam</sub>	The total number of hours in the published schedule that the accelerator is to provide beam for physics experiments
S <sub>j</sub>	The total number of hours assigned to the j <sup>th</sup> experiment in the published schedule

#### Details on the definitions of these quantities:

 $B_i$ , the beam availability for Hall i (where i = a, b, or c), is defined as the ratio of the time the beam is available for delivery to that hall to the time it is scheduled for delivery to that hall. The beam shall be considered as available for the experimental program when the beam quality deliverable to an experimental target lies within the nominal specifications and remains stable within defined limits over a thirty minute running period (see Table 2.5). Different specifications and stability limits may be used for specific experiments if agreed to in advance by both the Accelerator Division and the experiment spokesperson. Specifications for beam availability for accelerator development activities shall be defined in advance by the spokesperson for the development activity and the Accelerator Division.

E<sub>i</sub>, the availability of the experimental equipment for hall i (where i = a, b, or c), is defined as the ratio of the time the equipment for that hall is operational at its design specifications in a particular configuration to the time it is scheduled for use in that configuration. The metric will initially consider only the "base" equipment as defined by the Jefferson Lab construction project. As new equipment is added to the base equipment (or as major new experimental apparatus is developed) it shall be treated separately following the availability goals established for the base equipment during its first two years of operation, and treated as part of the base equipment thereafter.

B<sub>ad</sub>, the beam availability for accelerator development activities, is defined as the ratio of the time the beam is useful for these development activities to the time it is scheduled for such activities. Specifications for beam availability for accelerator development activities shall be defined in advance by mutual agreement between the spokesperson for the development activity and the Accelerator Division.

Table 2.5: Beam Requirements - General Characteristics

Parameter	Nominal Value and Range	Stability (for hours)
Beam Emittance: rms spot size for	Hall A: 20 μm < σ <sub>x</sub> < 50 μm	25% of value
achromatic beam tune (10)	$20  \mu \text{m} < \sigma_{\text{V}} < 50  \mu \text{m}$	,
(00)	Hall B: $20  \mu \text{m} < \sigma_x < 70  \mu \text{m}$	
	$\frac{11411 \text{ B.}}{20 \text{ μm}} = \frac{20 \text{ μm}}{20 \text{ μm}} = \frac{30 \text{ μm}}{20 \text{ μm}}$	
	Hall C: 50 μm $< \sigma_x < 100$ μm	
	50 μm < σ <sub>y</sub> < 100 μm	25% of value
Beam Emittance: angular divergence (10)	$σ_{x'}$ , $σ_{y'}$ < 100 μr	
Beam position	0 μm (relative to optic axis)	rms deviation is less than 25% of the
		beam spot's rms radius
Beam direction	0 μr (relative to optic axis)	rms deviation is less than 25% of the
		beam angular divergence rms 1/2
Energy (average)	0.5 - 4 GeV	cone angle Hall A: < 3 E-4
Energy (average)	0.5 - 4 GeV	Hall B: <1 E-3
		Hall C: < 1 E-3
		(also < 3 E-3 over days for all)
Energy Spectrum (1 $\sigma$ )	Hall A: $\sigma_E/E < 5 E-5$	25% of value
Energy Speedum (10)	Hall B: $\sigma_F/E < 4.0 E-4$	
	Hall C: $\sigma_E/E < 2.5$ E-4	
Background (Beam Halo)		any value within nominal range
Dackground (Deam Halo)	< 1E-6 of total current at 5σ (with	any value within nominal range
	diagnostic to be provided by the experiment)	
Current (dc average)		within ± 10% of value requested by
(Note: any single hall is restricted to <120	Hall A: 40 nA – 180 μA	experimenter
$\mu$ A unless it has exclusive use of the beam,	Hall B: 1 nA – 10 μA	experimenter
and total current delivered to all 3 halls	Hall C: 40 nA – 180 μA	
must be $<180 \mu A$ )	·	
Polarization (current range to be	>35% (from bulk GaAs, with expected	± 10% of value
determined by agreement between Physics	currents of order 100 µA)	T 10/0 OI Value
and Accelerator Divisions)	>75% (from strained cathodes, with	
and a record with Driving	currents of order 30 µA expected)	
Effective Duty Factor	>90% (lower values may be negotiated	any value within the nominal range
Effective Duty Factor	with the Accelerator Division)	(90%-100%)
Proper Impingement on Beam Dump	rastered beam spot size > 100 μm	
(raster)	stability of position < 1 cm (not	
	including rastering)	

#### Scoring:

 $2.0\,$  Delivered Physics Research Operations,  $S_{physics-research}$ , as determined by the number of hours of simultaneous availability of the beam and the experimental equipment. [150 points]

FY00 Peak Performance Goal (PPG):  $S_{physics-research-goal} = S_{beam} A_{sim-goal} M_{goal}$  (hours) Where  $A_{sim-goal} = A_{accel-goal} E_{t-goal}$ , the product of the goals for accelerator and experiment equipment availability, and  $M_{goal}$  is the goal for hall multiplicity, i.e., the average number of halls that are running any time the accelerator beam is available for physics. The product  $S_{beam} A_{sim-goal}$ 

gives the number of hours of useful physics running that the accelerator and experimental equipment would deliver if both beam and experimental equipment availability goals were met (and assuming that there are no correlations in the causes of down-time for the accelerator and the experimental equipment). M<sub>goal</sub> is nominally 2.0, reflecting our goal of running, on average, two halls simultaneously. The value of 2.0 is mainly based on a realistic assessment of the achievable multiplicity given the level of technical support available at the laboratory to assist in mounting and running experiments and our typical planning for major experiment installations each year. The multiplicity goal may be adjusted annually as part of the negotiations between DOE and laboratory management on the year's operating budget and staff levels.

In addition,  $M_{goal}$  will be reduced in any year that one or more of the halls are planned to be "down" for an unusual length, e.g., for a major upgrade of the apparatus or the installation of major new apparatus. There are no such reductions anticipated for FY00.

This is to be compared with the actual physics research operations, given by:

$$S_{physics-research} = S_aD_a + S_bD_b + S_cD_c$$
 (hours)

If actual performance is at least 50% of agreed PPG, then % of points awarded = % of PPG achieved. No points are awarded if actual performance is less than 25% of agreed PPG.

Performance Level	Adjectival Rating	% of Assigned Points
90% to 100% of PPG	Outstanding	90 to 100
80% to < 90% of PPG	Excellent	80 to < 90
70% to < 80% of PPG	Good	70 to < 80
60% to < 70% of PPG	Marginal	60 to < 70
50% to < 60% of PPG	Unsatisfactory (Poor)	50 to < 60
25% to < 50% of PPG	Unsatisfactory (Failing)	2 * (% of PPG achieved - 25%)

2.1 The total beam availability, B<sub>t</sub>, is the weighted average over the experimental and beam development activities scheduled of the beam availabilities for the individual experimental halls and for accelerator development activities. [25 points]

FY00 Peak Performance Goal (PPG): 75%

$$B_t = (B_a S_a + B_b S_b + B_c S_c + B_{ad} S_{ad})/(S_a + S_b + S_c + S_{ad})$$

If actual performance ( $B_t$ ) is at least 50% of agreed PPG, then % of points awarded = % of PPG achieved. No points are awarded if actual performance is less than 25% of agreed PPG.

Performance Level	Adjectival Rating	% of Assigned Points
90% to 100% of PPG	Outstanding	90 to 100
80% to < 90% of PPG	Excellent	80 to < 90
70% to < 80% of PPG	Good	70 to < 80
60% to < 70% of PPG	Marginal	60 to < 70
50% to < 60% of PPG	Unsatisfactory (Poor)	50 to < 60
25% to < 50% of PPG	Unsatisfactory (Failing)	2 * (% of PPG achieved - 25%)

2.2 The total availability of the base experimental equipment, E<sub>t</sub>, is the average over all halls scheduled of the beam availabilities for the individual halls. [25 points]

#### FY00 Peak Performance Goal (PPG):

$$E_{t-goal} = (E_{a-goal}S_a + E_{b-goal}S_b + E_{c-goal}S_c)/(S_a + S_b + S_c)$$

and is calculated based on the published schedule for hall operations and the goals, E<sub>i-goal</sub>, for the individual hall availabilities as listed in Table 2.3 above.

The actual availability to be compared with the goal above is:

$$E_t = (E_a S_a + E_b S_b + E_c S_c)/(S_a + S_b + S_c)$$

If actual performance ( $E_t$ ) is at least 50% of agreed PPG ( $E_{t-goal}$ ), then % of points awarded = % of PPG achieved. No points are awarded if actual performance is less than 25% of agreed PPG.

Performance Level	Adjectival Rating	% of Assigned Points
90% to 100% of PPG	Outstanding	90 to 100
80% to < 90% of PPG	Excellent	80 to < 90
70% to < 80% of PPG	Good	70 to < 80
60% to < 70% of PPG	Marginal	60 to < 70
50% to < 60% of PPG	Unsatisfactory (Poor)	50 to < 60
25% to < 50% of PPG	Unsatisfactory (Failing)	2 * (% of PPG achieved - 25%)

2.3 The effectiveness of the scheduling process,  $\varepsilon_{sched}$ , is the average performance with respect to start times for all experiments on the published, "firm" schedule, weighted according to the scheduled duration,  $S_j$ , of each experiment, of the ratio,  $R_j$ , of the actual start time to the scheduled start time for the  $j^{th}$  experiment. [25 points]

## FY00 and beyond Peak Performance Goal (PPG): 100%

$$\varepsilon_{sched} = (\Sigma S_j R_j)/(\Sigma S_j)$$
, where  $R_j = (t_{ss} - t_{bs})/(t_{sa} - t_{bs})|_j$ 

If actual performance ( $\varepsilon_{\text{sched}}$ ) is at least 50% of agreed PPG, then % of points awarded = % of PPG achieved. No points are awarded if actual performance is less than 25% of agreed PPG.

Performance Level	Adjectival Rating	% of Assigned Points
90% to 100% of PPG	Outstanding .	90 to 100
80% to < 90% of PPG	Excellent	80 to < 90
70% to < 80% of PPG	Good	70 to < 80
60% to < 70% of PPG	Marginal	60 to < 70
50% to < 60% of PPG	Unsatisfactory (Poor)	50 to < 60
25% to < 50% of PPG	Unsatisfactory (Failing)	2 * (% of PPG achieved - 25%)

#### Notes:

1) The basic schedule will be issued every six months; it will confirm the remainder of the "firm" schedule which has been in progress for the preceding three months and announce the firm schedule for a period

- extending to nine months from the date of issue and the tentative schedule for six months following the announced firm schedule.
- 2) Schedule changes requested by the experimenter or deemed mutually beneficial to both the experimenter and the laboratory shall be treated as if the changed date was listed in the original schedule for the purposes of calculating this sum.
- 2.4 Overall operations effectiveness,  $\varepsilon_{ops}$ , defined as the ratio of the total time the accelerator is operated for physics (in weeks) to the total accelerator operations (in weeks) that was identified as the joint expectation for the year during negotiations of the laboratory's operations budget. [25 points]

#### FY00 and beyond Peak Performance Goal (PPG): 100%

 $\varepsilon_{ops}$  = (weeks of accelerator operations for physics)/(weeks for accelerator ops in contract)

If actual performance ( $\varepsilon_{ops}$ ) is at least 50% of agreed PPG, then % of points awarded = % of PPG achieved. No points are awarded if actual performance is less than 25% of agreed PPG.

Performance Level	Adjectival Rating	% of Assigned Points
90% to 100% of PPG	Outstanding	90 to 100
80% to < 90% of PPG	Excellent	80 to < 90
70% to < 80% of PPG	Good	70 to < 80
60% to < 70% of PPG	Marginal	60 to < 70
50% to < 60% of PPG	Unsatisfactory (Poor)	50 to < 60
25% to < 50% of PPG	Unsatisfactory (Failing)	2 * (% of PPG achieved - 25%)

# 3. Production of Scientific and Technical Manpower

# 3A. Overview

Objective: Jefferson Lab will contribute to the education and training of the future scientific/ technical work force for the nation, emphasizing meaningful, unique research experiences at the forefront in its areas of physics and engineering and also emphasizing increasing the qualifications of underrepresented populations for scientific/technical careers.

#### **Key Indicator (60 points):**

- 3.0a Number of student years per year on Jefferson Lab-related research or technical activities. [35 points]
- 3.0b Total number of advanced degrees per year based on Jefferson Lab research. [25 points]

#### Secondary Indicators (15 points):

- 3.1 Number of advanced degrees per year granted by minority universities and based on Jefferson Lab research. [5 points]
- 3.2 Participation of students from groups traditionally underrepresented in physical science and engineering fields. [10 points]

# 3B. Performance Evaluation Plan

3.0a Number of student years per year on Jefferson Lab-related research or technical activities. [35 points]

#### Methodology

The data collection process involves two major components: the administration of a Jefferson Lab Users Group Survey and a cross-check against the University Relations student inventory list. Surveys are sent to the complete Users Group. An initial response rate of 10-20% of the group of active users is considered reasonable. However, to understand the nature of the full population, a follow-up survey of one in 15 non-respondents will be conducted. This follow-up survey attempts to capture non-respondents who ignored the initial survey because they thought it was irrelevant to them, but who have valid data that would more accurately reflect the population. Best estimates for user student population are obtained by supplementing the actual student numbers from the initial survey respondents with the expected number of unreported students based on the 1-in-15 follow-up survey. The follow-up survey of one in 15 non-respondents is a modification from the FY97 methodology where follow-up surveys were conducted with one in 30 non-respondents. The accuracy of the data will be improved with this modification.

Scoring: Tally the number for each high school, undergraduate, and graduate student involved in Jefferson Lab-related research or technical activities (including computing) at Jefferson Lab and collaborating institutions and apply the following equation:

WSII (Weighted Student Involvement Index) = 1HSS + 2UGS + 4GS where HSS = High School Students, UGS = Undergraduate Students, and GS = Graduate Students

Performance Level	Adjectival Rating	% of Assigned Points
WSII ≥ 1000 and < 1075	Outstanding	90 to 100
WSII ≥ 925 and <1000	Excellent	80 to < 90
WSII ≥ 850 and < 925	Good	70 to < 80
WSII ≥ 775 and <850	Marginal	60 to < 70
WSII < 775	Unsatisfactory	<60

3.0b Total number of advanced degrees per year based on Jefferson Lab research. [25 points]

#### Methodology

To estimate the total number of advanced degrees, initially reported and known degrees are supplemented with the expected numbers of unreported degrees based on the number of unreported students and the base of the reported students obtaining such degrees.

Scoring: Tally the number of Master's Degrees and PhD's awarded for research based at Jefferson Lab or involving strong interaction with Jefferson Lab and apply the following equation:

CD (Composite Degrees) = MD + 3PHDwhere MD = Number of awarded Master's degrees and <math>PHD = Number of awarded PhD's

Performance Level	Adjectival Rating	% of Assigned Points
CD ≥ 45 and < 53	Outstanding	90 to 100
CD ≥ 38 and < 45	Excellent	80 to < 90
CD ≥ 30 and < 38	Good	70 to < 80
CD ≥ 23 and <30	Marginal	60 to < 70
CD < 23	Unsatisfactory	<60

3.1 Number of advanced degrees per year granted by minority universities based on Jefferson Lab research. [5 points]

#### Methodology

Degrees awarded by minority institutions are collected directly. Participation by underrepresented populations are based on the percentages from the initial survey data.

<u>Scoring</u>: See 3.0b scoring scheme, but count degrees granted by minority institutions only (HBCU, MEI, women's college) and apply the following equation:

CDM (Composite Degrees Minority = MD + 3PHD) where MD = Number of awarded Master's degrees and PHD = Number of awarded PhD's

Performance Level	Adjectival Rating	% of Assigned Points
CMD ≥ 6	Outstanding	100
CMD ≥ 4 and < 6	Excellent	85
CMD ≥ 2 and < 4	Good	75
CMD = 1	Marginal	65
CMD = 0	Unsatisfactory	55

3.2 Participation of students from groups traditionally underrepresented in physical science and engineering fields. [10 points]

Scoring: Determine the MWSII (Minority Weighted Student Involvement Index) for women or underrepresented minorities.

MWSII = 1MHSS + 2MUGS + 4MGS

Where: MHSS = Women or Minority High School Students;

MUGS = Women or Minority Undergraduate Students; and,

MGS = Women or Minority Graduate Students

Students who qualify for more than one category can be counted more than once.

Performance Level	Adjectival Rating	% of Assigned Points**
$MWSII \ge 323 \text{ and } \le 376*$	Outstanding	90 to 100 .
$MWSII \ge 269 \text{ and } < 323$	Excellent	80 to < 90
$MWSII \ge 215 \text{ and } < 269$	Good	70 to < 80
$MWSII \ge 161 \text{ and } < 215$	Marginal	60 to < 70
$MWSII \ge 107 \text{ and } < 161$	Unsatisfactory (Poor)	50 to < 60
MWSII < 107	Unsatisfactory (Failing)	0 to < 50

<sup>\*</sup> Performance level greater than 376 receive 100% of assigned points.

% of points = (((MWSII - lowest number in Performance Level) / 53) \* 10) + lowest number in % of Assigned Points for <math>MWSII > 107 % of points = (1 - ((106 - MWSII) / 106))) \* 49 for MWSII < 107

<sup>\*\*</sup> Percent of assigned points identified in the table can be calculated directly by the following formulas:

# 4. Corporate Citizenship

#### 4A. Overview

Objective: As a taxpayer-funded institution, Jefferson Lab should serve the public and the national interest in important areas where it has special competencies which are mission related.

#### PUBLIC OUTREACH AND IMPROVED SCIENTIFIC LITERACY (35 points).

Objective: Scientific literacy and support are essential for the public to make competent decisions on everyday matters of increasingly complex technical nature. Science and math education are important for today's students if they are to complete high school prepared for college or a worthwhile career. As a workplace where science and math are in the forefront, Jefferson Lab can provide unique educational and motivational opportunities and materials. Public awareness of Jefferson Lab and its DOE-sponsorship is also essential for the future well being of the laboratory and the national science enterprise.

#### **Key Indicator (20 points)**

4.0 Public participation (in effective person-hours per year): [Number of student hours + number of public hours + 10 \* number of teacher hours] per year, including visits, external public talks, science series, tours, open house, BEAMS, etc.

#### **Secondary Indicators (15 points)**

- 4.1 Public visibility: Number of newspaper and magazine articles, Web-based news systems, and radio and television programs mentioning Jefferson Lab and its science or technology (7 points); percentage of these citations mentioning DOE (3 points). [10 points total]
- 4.2 "Customer satisfaction" [5 points]

# **TECHNOLOGY TRANSFER (40 points)**

Objective: The objective of the Jefferson Lab technology transfer program is the dissemination of key technologies to industry that are developed as result of Jefferson Lab's primary scientific mission and that are of interest to industry.

#### **Key Indicator (20 points)**

4.3 Non-DOE investment in Jefferson Lab initiatives (including direct dollars, manpower costs, and contributions in-kind)

# **Secondary Indicators (20 points)**

- 4.4 Intellectual property generation as indicated by the annual number of (a) patent applications, (b) patents awarded, (c) license agreements. [10 points]
- 4.5 Benefit to partners based on the results of a mutually agreed customer survey where the customer indicates level of satisfaction on a 1 (lowest) to 5 (highest) scale. [10 points]

#### 4B. Performance Evaluation Plan

#### PUBLIC OUTREACH AND IMPROVED SCIENTIFIC LITERACY [35 points]

#### Introduction:

Jefferson Lab's effect on public awareness and literacy is strongest when people have direct personal contact with laboratory personnel and facilities. The typical minimum time to influence a person's awareness and literacy of things that are outside his/her area of expertise is about an hour, and significant learning can occur in this period. Teachers learn not just for themselves but to pass on information and concepts to their students. Typical teachers contact 25-100 students per year, but the literacy transfer to the students is likely to be lower than it would be if the students participated in the Jefferson Lab experience directly. Consequently, the multiplier 10 for teacher participation is a conservative adjustment for the true outreach/literacy impact.

4.0 Public participation (in effective person-hours per year): [Number of student hours + number of public hours + 10 \* number of teacher hours] per year, including visits, external public talks, science series, tours, open house, BEAMS, etc. [20 points]

Scoring: Count or estimate the number  $(N_i)$  of participants or attendees in each event (i). Measure the duration  $(t_i)$  in hours of the activity, event, or the typical person's involvement. People counted under Scientific Manpower do not count here; high school students doing research do not count.

Calculate the public participation metric (P)

$$P = \sum_{i} N_i t_i$$
 for all events

#### Peak Performance Goal (PPG):

Good faith efforts will be made to ensure N<sub>i</sub> is accurate within 10%; t<sub>i</sub> will be measured to the nearest half hour. For FY 2000 Jefferson Lab's Peak Performance Goal (PPG) will be:

- -105,000 person-hours broken down as:
  - Science and Education students, teachers, parents 95,000\*
  - Public Outreach 10,000
- Note: If the TRAC program is not funded by DOE, this number will be reduced by 25,000 to 80,000 person-hours overall and 70,000 person-hours for science education. The corresponding ratings will be:

Performance Level	Adjectival Rating	% of Assigned Points†
90% to 100% of PPG	Outstanding	90 to 100
80% to < 90% of PPG	Excellent	80 to < 90
70% to < 80% of PPG	Good	70 to < 80
60% to < 70% of PPG	Marginal	60 to < 70
50% to < 60% of PPG	Unsatisfactory (Poor)	50 to < 60
0% to < 50% of PPG	Unsatisfactory (Failing)	0 to < 50

<sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed.

4.1 (a) Public visibility: Number of newspaper and magazine articles, Web-based news systems, and radio and television programs mentioning Jefferson Lab and its science or technology (7 points); (b) percentage of these citations mentioning DOE (3 points). [10 points total]

#### Scoring:

a) Public Visibility "V" [7 points]

$V = \Sigma Wi$	Wi = Ci + Di	i = each article, radio or TV appe	arance
Circulation Wei	ghting Factors (Ci)	Distribution Factor	(Di)
<10,000	1	Local inside SE Virginia	0
10,000-50,000	2	Local outside SE Virginia	+1
50,000-250,000	3	Regional	+1
>250,000	4	National	+2
		International	+3

Regional is defined as Washington DC, Maryland, West Virginia, Tennessee and North Carolina.

The number counted will be  $\leq$  the number occurring, because we would not necessarily be aware of all coverage. If one article is repeated in many publications, add the audience circulation factor and the distribution factors for each. Each article in a series of articles will be counted individually.

Peak Performance Goal (PPG): For FY 2000 Jefferson Lab's Peak Performance Goal will be 400. Scoring will be determined using the values in the following table.

Performance Level	Adjectival Rating	% of Assigned Points
90% to 100% of PPG	Outstanding	90 to 100
80% to < 90% of PPG	Excellent	80 to < 90
70% to < 80% of PPG	Good	70 to < 80
60% to < 70% of PPG	Marginal	60 to < 70
50% to < 60% of PPG	Unsatisfactory (Poor)	50 to < 60
0% to < 50% of PPG	Unsatisfactory (Failing)	0 to < 50

<sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed.

#### b) DOE Citation. [3 points]

Percent mentioning DOE: Count the articles, broadcasts, exhibits, interviews and videos (A) initiated by Jefferson Lab which feature the laboratory and the subset (S) of those communications in which the Laboratory mentions DOE. In the case where the Laboratory mentions "DOE" in a proposed article or broadcast and the final version is revised or altered by the media, the Laboratory will receive credit for the article or broadcast since the Laboratory has no control over the final version. Percent = 100 S/A. The score is as follows:

Performance Level	Adjectival Rating	% of Assigned Points
90% to 100%	Outstanding	90 to 100
80% to < 90%	Excellent	80 to < 90
70% to < 80%	Good	70 to < 80
60% to < 70%	Marginal	60 to < 70
50% to < 60%	Unsatisfactory (Poor)	50 to < 60
0% to < 50%	Unsatisfactory (Failing)	0 to < 50

<sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed.

#### 4.2 Customer satisfaction. [5 points]

Scoring: Normalize all feedback from customers (overall ratings) for selected events and activities [to be determined by the laboratory and the DOE Site Office], with average or neutral being 70. Average all available event scores. For public participation events, at least 15% of the total number of participants will be surveyed. This fraction should be representative of a reasonable cross-section of all such public events. For education events, at least 80% of the participants will be surveyed.

Each customer indicates a level of satisfaction on a 1 (lowest) to 5 (highest) scale for each event. After each event, average is calculated, average the event averages resulting in one overall average (A). Normalize the average (A) according to the following formula:

 $N_A$ =Normalized Average (A) = [(A - 1)\*15] + 40

Performance Level (NA)	Adjectival Rating	% of Assigned Points <sup>†</sup>
90 to 100	Outstanding	90 to 100
80 to < 90	Excellent	80 to < 90
70 to < 80	Good	70 to < 80
60 to < 70	Marginal	60 to < 70
50 to < 60	Unsatisfactory (Poor)	50 to < 60
40 to < 50	Unsatisfactory (Failing)	0 to < 50

<sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed.

#### **TECHNOLOGY TRANSFER (40 points)**

4.3 Non-DOE investment in Jefferson Lab initiatives (including direct dollars, manpower costs, and contributions in-kind) [20 points]

#### Scoring:

	Performance Level			Adjectival Rating	Assigned Points	
Non-DOE Investment 2% to 2.5% of Jefferson Lab ops budget		Outstanding	18 to 20			
"	11	1.5% to < 2%	11	tt.	Excellent	16 to < 18
11	#	1% to < 1.5%	11	11	Good	14 to < 16
11	11	0.5% to < 1%	11	11	Marginal	12 to < 14
11	11	0.25% to < 0.5%	11	**	Unsatisfactory (Poor)	10 to < 12
+1	"	< 0.25%	11	11	Unsatisfactory (Failing)	0 to < 10

<sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed.

- 4.4 Intellectual property generation as indicated by the annual number of [10 points]:
  - (a) patent applications
  - (b) patents awarded
  - (c) license agreements

#### Scoring:

定義、深語語:	Adjectival Rating :	Assigned Points %
Two license granted or one patent award or 5 or more patent applications executed	Outstanding	10
4 patent applications executed	Excellent	8
3 patent applications executed	Good	6
2 patent applications executed	Marginal	4
1 patent application executed	Unsatisfactory (Poor)	2
0 patent application executed	Unsatisfactory (Failing)	0

# 4.5 Benefit to partners based on the results of a mutually agreed customer survey where the customer indicates level of satisfaction on a 1 (lowest) to 5 (highest) scale. [10 points]

#### Scoring:

Performance Level (Average Rating on Customer Survey)	Adjectival Rating	% of Assigned Points <sup>†</sup>	
4.0 to 5.0	Outstanding	90 to 100	
3.5 to < 4.0	Excellent	80 to < 90	
3.0 to < 3.5	Good	70 to < 80	
2.5 to < 3.0	Marginal '	60 to < 70	
2.0 to < 2.5	Unsatisfactory (Poor)	50 to < 60	
0.0 to < 2.0	Unsatisfactory (Failing)	0 to < 50	

<sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed.

# 5. Quality Performance in Environment, Health, and Safety 5.A Overview

Objective: Protection of workers, the public and the environment, adherence to the ALARA concept, and compliance with laws, regulations, statutory requirements, and appropriate national initiatives (recycling, waste reduction, etc.) at lowest reasonable cost.

#### **Key Indicators (55 Points)**

5.0a Cost index: 100 \* (\$1,000,000 \* fatalities + \$500,000 \* permanent transfers or terminations due to occupational illness or injury + 2,000 \* lost workday cases + 1,000 \* days away from work + 400 \* restricted workdays + 2,000 \* number of non-fatal cases without days away from work or restricted workdays) / total work-hours. [35 points]

5.0b Jefferson Lab environmental exceedances per fiscal year. [20 points]

#### **Secondary Indicators (45 points)**

- 5.1 Jefferson Lab lost work day case rate (cases per 100 person years worked). [15 points]
- 5.2a Number of reportable and recordable exposures to radiation as off-normal occurrences, plus 5 times this number for unusual occurrences. [4 points]
- 5.2b Number of reportable and recordable exposures to hazardous substances as off-normal occurrences, plus 5 times this number for unusual occurrences. [4 points]
- 5.3 Solid waste recycled, in tons, divided by (solid waste sent to landfill, in tons + solid waste recycled, in tons). [6 points]
- 5.4a Pounds of radioactive waste produced by (equipment upgrades + maintenance) divided by pounds of radioactive waste produced by (equipment upgrades + maintenance + unintentional processes). [4 points]
- 5.4b Pounds of hazardous waste produced divided by pounds of hazardous waste which would have been produced without countermeasures. [4 points]
- 5.5 Peer review of Emergency Management Program in odd-numbered fiscal years, and of Radiological Control Program in even-numbered fiscal years. [4 points]
- 5.6 Fraction of high-value facilities rated "Highly Protected Risk." [4 points]

#### 5B. Performance Evaluation Plan

5.0a Cost index: 100 \* (\$1,000,000 \* fatalities + \$500,000 \* permanent transfers or terminations due to occupational illness or injury + 2,000 \* lost workday cases + 1,000 \* days away from work + 400 \* restricted workdays + 2,000 \* number of non-fatal cases without days away from work or restricted workdays) / total work-hours. [35 points]

#### Introduction:

Goal: To achieve a performance level which is 50% better than the DOE Lab average.

Comprises all SURA/Jefferson Lab staff

• Includes official travel

Includes personnel paid under joint salary arrangements

Data collection: EH&S Reporting Data evaluation: EH&S Reporting

Performance measure custodian: EH&S Reporting

Performance measurement validation: Relevant information is presently collected.

Scoring: Based on ratio R of Jefferson Lab's performance during the rating (fiscal) year to the average of DOE Research Contractors for the immediately preceding calendar year, as shown in Table S3 of the publication "DOE Occupational Injury and Property Damage Summary." Note that if 1/R=1.50, then the Laboratory's goal is met and 100% of the available points are awarded. Other scores are illustrated in the following Table; Figure 5.1 on the following page shows the logarithmic interpolation between performance levels listed in the Table:

Performance Level (R)	Adjectival Rating	% of Assigned Points [92.7 -12.5(log <sub>2</sub> R)]
1.162 to 0.667	Outstanding	90 to 100
2.022 to 1.162	Excellent	80 to <90
3.521 to 2.022	Good	70 to <80
6.130 to 3.521	Marginal	60 to <70
10.67 to 6.130	Unsatisfactory (Poor)	50 to <60
170.8 to 10.67	Unsatisfactory (Failing)	0 to <50

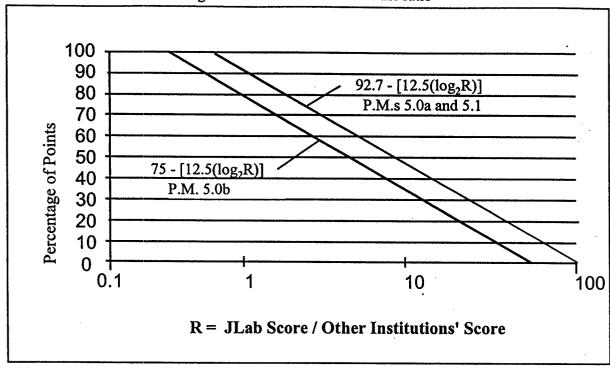


Figure 5.1: Points awarded v. the ratio

5.0b Jefferson Lab environmental exceedances per fiscal year. [20 points]

## Introduction:

Goal: To achieve a performance level which is 4 times as good as the DOE complex average. Qualifiers:

- Violation points for purely administrative violations caused by late reporting of routine
  information to the regulatory agency may be waived (for purposes of this performance
  measure) by agreement of SURA and the DOE Site Office if SURA had all necessary
  information to the Site Office at least two working days before it was due.
- Violation points for multiple related concurrent violations will be treated as a single violation.
- Occurrence Reporting and Processing System (ORPS) thresholds are as defined in order 232.1 dated 9/25/95.

Data collection: EH&S Reporting, receiving information from the Site Office

Data evaluation: EH&S Reporting

Performance measure custodian: EH&S Reporting

**Performance measurement validation:** Relevant information is presently collected. Site Office is the permit holder, and receives information directly on Jefferson Lab environmental exceedances.

Scoring: Jefferson Lab's current performance is evaluated against a permanent baseline of DOE-wide performance for CY 1995. Performance level is based on the ratio R of Jefferson Lab's

performance per FTE to the DOE-wide environmental exceedances performance per FTE, using CY 1995 (as extracted from EH-33 special survey).

#### Values assigned as follows:

- A ".1" environmental exceedance for a purely administrative violation that is reportable under the ORPS.
- A ".3" environmental exceedance for an environmentally significant violation that results in no long-term (typically less than 30 days) environmental damage, but the violation is ORPS reportable.
- A "1.0" environmental exceedance for a violation that has a significant environmental impact of > 30 days and is ORPS reportable.

The sum of these values is divided by the Jefferson Lab FTEs and compared to the permanent DOE baseline to develop the ratio, R. Note that if 1/R=4, then the Laboratory's goal is met and 100% of the available points are awarded. Other scores are illustrated in the following Table; Figure 5.1 shows the logarithmic interpolation between performance levels listed in the Table:

Performance Level (R)	Adjectival Rating	% of Assigned Points [75-12.5(log <sub>2</sub> R)]
.436 to .25	Outstanding	90 to 100
.758 to .436	Excellent	80 to <90
1.32 to .758	Good	70 to <80
2.30 to 1.32	Marginal	60 to <70
4.0 to 2.30	Unsatisfactory (Poor)	50 to <60
64.0 to 4.0	Unsatisfactory (Failing)	0 to <50

5.1 Jefferson Lab lost work day case rate (cases per 100 person years worked). [15 points]

#### Introduction:

Goal: To achieve a performance level which is 50% better than the DOE Lab average.

#### Qualifiers:

- Comprises all SURA/Jefferson Lab staff
- Includes official travel
- · Includes personnel paid under joint salary arrangements

Data collection: EH&S Reporting
Data evaluation: EH&S Reporting

Performance measure custodian: EH&S Reporting

Performance measurement validation: Relevant information is presently collected.

Scoring: Based on ratio R of Jefferson Lab's performance during the rating (fiscal) year to the average of DOE Research Contractors for the immediately preceding calendar year, as shown in Table S3 of the publication "DOE Occupational Injury and Property Damage Summary." Note that if 1/R=1.50, then the Laboratory's goal is met and 100% of the available points are awarded.

Other scores are illustrated in the following Table; Figure 5.1 shows the logarithmic interpolation between performance levels listed in the Table:

Performance Level (R)	Adjectival Rating	% of Assigned Points [92.7 - 12.5(log <sub>2</sub> R)]
1.162 to 0.667	Outstanding	90 to 100
2.022 to 1.162	Excellent	80 to <90
3.521 to 2.022	Good	70 to <80
6.130 to 3.521	Marginal	60 to <70
10.67 to 6.130	Unsatisfactory (Poor)	50 to <60
170.8 to 10.67	Unsatisfactory (Failing)	0 to <50

5.2a Number of reportable and recordable exposures to radiation as off-normal occurrences, plus 5 times this number for unusual occurrences. [4 points]

#### Introduction:

Goal: To have a satisfactory ALARA program, with no exposures > 80% of the ORPS off-normal threshold.

#### Qualifiers:

- Includes everyone on site (including adjacent space leased by SURA and those personnel covered by the Jefferson Lab radiation dosimetry program)
- Only the worst exposure is counted in an event involving radiation exposure.
- Excludes exposures pre-approved in accordance with the Rad Con Manual.
- ORPS thresholds are as defined in order 232.1, dated 9/25/95.

Data collection: Radiological Control reports the information to EH&S Reporting

Data evaluation: EH&S Reporting

Performance measure custodian: EH&S Reporting

Performance measurement validation: Relevant information is presently collected.

Scoring: Based directly on exposures and program evaluation. Values assigned as follows:

- 0.00 for ALARA program rated better than satisfactory in the most recent internal evaluation (performed by the Radiological Control Manager during the preceding 12 months).
- 0.01 for ALARA program rated satisfactory in the most recent internal evaluation.
- 0.1 for ALARA program rated less than adequate in the most recent internal evaluation.
- 0.5 for an event in which the worst whole body exposure is above 80% but below 100% of the ORPS off-normal threshold.
- 1.0 for an event in which the worst whole body exposure is above the ORPS off-normal threshold but below the unusual occurrence threshold.
- 5.0 for an event in which the worst whole body exposure is above the ORPS unusual occurrence threshold.

Performance Level is given by the sum (S) of these values.

Performance Level (S)	Adjectival Rating	% of Assigned Points†
< 0.1 to 0.01	Outstanding	90 to 100
0.5 to 0.1	Excellent	80 to <90
1.0 to > 0.5	Good	70 to <80
5.0 to > 1.0	Marginal	60 to <70
10.0  to > 5.0	Unsatisfactory (Poor)	50 to <60
> 10.0	Unsatisfactory (Failing)	0 to <50

<sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed except performance levels >10.0 are scored by logarithmic extrapolation from Marginal and Unsatisfactory (Poor).

5.2b Number of reportable and recordable exposures to hazardous substances as off-normal occurrences, plus 5 times this number for unusual occurrences. [4 points]

#### Introduction:

Goal: To have no exposures above an OSHA action level.

#### **Qualifiers**:

- Includes everyone on site (including adjacent space leased by SURA)
- ORPS thresholds are as defined in order 232.1, dated 9/25/95.
- No more than three exposures are counted in a single incident.

Data collection: Industrial Hygiene Staff report the information to EH&S Reporting

Data evaluation: EH&S Reporting

Performance measure custodian: EH&S Reporting

Performance measurement validation: Relevant information is presently collected.

Scoring: Based on exposures. Values assigned as follows:

- 0.1 for an exposure above an OSHA action level, but less than the ORPS off-normal threshold (2 times the OSHA permissible exposure level).
- 1.0 for an exposure above the ORPS off-normal threshold, but below the unusual occurrence threshold.
- 5.0 for an exposure above the unusual occurrence threshold (5 times the OSHA permissible exposure level).

Performance Level is given by the sum (S) of these values

Performance Level (S)	Adjectival Rating	% of Assigned Points†
0.5 to 0.0	Outstanding	90 to 100
1.0  to > 0.5	Excellent	80 to <90
4 to > 1.0	Good	70 to <80
16 to > 4	Marginal	60 to <70
35 to > 16	Unsatisfactory (Poor)	50 to <60
> 35	Unsatisfactory (Failing)	0 to <50

In each adjectival category, points are assigned by linear interpolation between the ranges listed except performance levels >35 are scored by logarithmic extrapolation from Marginal and Unsatisfactory (Poor).

5.3 Solid waste recycled, in tons, divided by (solid waste sent to landfill, in tons + solid waste recycled, in tons). [6 points]

#### Introduction:

Goal: To exceed the FY94 baseline recycling ratio (0.021) by 44%.

#### Qualifiers:

• Includes solid waste in dumpsters on the Jefferson Lab site.

• Includes solid waste picked up for recycling from the Jefferson Lab site.

• Weights are measured by the subcontractors as part of the subcontract requirements.

• Additional waste streams may be added if they are found to be significant.

**Data collection:** The solid waste and recycling subcontractors report the information to Plant Engineering, which consolidates the data and forwards it to EH&S Reporting.

Data evaluation: EH&S Reporting

Performance evaluation: EH&S Reporting

Performance measurement validation: Relevant information is presently collected.

Scoring: Based directly on current year's recycling ratio.

Performance Level (Ratio)	Adjectival Rating	% of Assigned Points†
$0.026 \text{ to} \le 0.030$	Outstanding	90 to 100
0.020 to < 0.026	Excellent	80 to <90
0.010 to < 0.020	Good	70 to <80
0.005 to < 0.010	Marginal	60 to <70
0.002 to < 0.005	Unsatisfactory (Poor)	50 to <60
< 0.002	Unsatisfactory (Failing)	0 to <50

In each adjectival category, points are assigned by linear interpolation between the ranges listed except performance levels <0.002 are scored by logarithmic extrapolation from Marginal and Unsatisfactory (Poor).

5.4a Pounds of radioactive waste produced by (equipment upgrades + maintenance) divided by pounds of radioactive waste produced by (equipment upgrades + maintenance + unintentional processes). [4 points]

#### Introduction:

Goal: To limit generation of radioactive waste by unintentional processes to 10% of total radioactive waste generated.

#### **Oualifiers:**

- Equipment upgrades includes the removal of equipment which is no longer in use.
- Maintenance includes repairs necessitated by spontaneous failures.
- Unintentional processes exclude radioactive waste caused by spontaneous failures.
- Only accelerator and experimental equipment components are included.

 Unintentional processes include thermal damage caused by the beam and mechanical damage, plus other processes only if the information is available to theRadiological Control Group without investigation by that group.

• If no radioactive waste is generated in a year, a rating of 95% will be assigned.

Data collection: The Radiological Control Group collects this information and forwards it to

EH&S Reporting.

Data evaluation: EH&S Reporting

Performance measure custodian: EH&S Reporting

Performance measurement validation: Relevant information is readily collectible.

Scoring: Based directly on ratio.

Performance Level (Ratio)	Adjectival Rating	% of Assigned Points†
$0.80 \text{ to} \le 0.90$	Outstanding	90 to 100
0.70 to < 0.80	Excellent	80 to <90
0.60 to < 0.70	Good	70 to <80
0.50 to < 0.60	Marginal	60 to <70
0.40 to < 0.50	Unsatisfactory (Poor)	50 to <60
0.00 to < 0.40	Unsatisfactory (Failing)	0 to <50

<sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed.

5.4b Pounds of hazardous waste produced divided by pounds of hazardous waste which would have been produced without countermeasures. [4 points]

#### Introduction:

Goal: To reduce hazardous waste generation by a factor of 4 relative to the amount which would be produced without countermeasures.

Qualifiers: None

**Data collection:** Pounds of hazardous waste is determined by the Hazardous Waste Coordinator. Pounds of hazardous waste which would have been produced without countermeasures is determined jointly by the hazardous waste coordinator and the hazardous waste producer.

Data evaluation: EH&S Reporting

Performance measure custodian: EH&S Reporting

**Performance measurement validation:** The criteria used for determining pounds of hazardous waste which would have been produced without countermeasures are reviewed by EH&S Reporting to ensure validity.

Scoring: Based directly on ratio.

Performance Level (Ratio)	Adjectival Rating	% of Assigned Points†
$0.4 \text{ to} \ge 0.25$	Outstanding	90 to 100
0.5  to > 0.4	Excellent	80 to <90
0.6  to > 0.5	Good	70 to <80
0.7  to > 0.6	Marginal	60 to <70
0.8  to > 0.7	Unsatisfactory (Poor)	50 to <60
1.0  to > 0.8	Unsatisfactory (Failing)	0 to <50

In each adjectival category, points are assigned by linear interpolation between the ranges listed.

5.5 Peer review of the Emergency Management Program in odd-numbered fiscal years, and of the Radiological Control Program in even-numbered fiscal years. [4 points]

#### Introduction:

Goal: Program (including planning and response services and facilities) is appropriate for a low-hazard, non-nuclear accelerator facility.

#### **Oualifiers:**

- Factors considered by Emergency Management Review Committee:
  - Gaps or redundancies relative to services available in surrounding communities
  - Appropriate balance between costs and potential benefits
  - Efficient use of resources applied
  - Related Appendix E requirements in effect on November 1, 1996, including those replaced by this performance measure, provided to Review Committee for their information and use
- Factors considered by Radiological Control Review Committee:
  - Management and control of exposures to workers and the public
  - Control of radiological damage to the environment
  - Achievement of exposures which are as low as reasonable, considering cost
  - Compliance with laws, regulations, and other Necessary Standards
  - Results of DOELAP review when conducted since the last Radiological Control Program review
  - Efficient use of resources applied
  - Related Appendix E requirements in effect on November 1, 1996, including those replaced by this performance measure, provided to Review Committee for their information and use

Data collection: The Emergency Management Manager and Radiological Control Manager, respectively, provide appropriate data to the Review Committee.

#### Data evaluation:

- Performed by the Review Committee
- Duration of review one to two days
- Emergency Management Review Committee:
  - Membership:
    - Emergency management professional from the surrounding community

- Line manager from Thomas Jefferson National Accelerator Facility
- Line manager from an industrial organization in surrounding community
- Observer from DOE
- Members and chairperson selected by Emergency Management Manager, subject to DOE Site Office concurrence
- Radiological Control Review Committee:
  - Membership:
    - Two radiological professionals from DOE laboratories
    - Line manager, active or recently retired, from an organization with substantial accelerator experience (excluding Jefferson Lab)
  - Members selected by Radiological Control Manager, subject to DOE Site Office concurrence
  - Professionals from DOE laboratories are expected to be familiar with applicable laws, regulations, and other Necessary Standards
- The Review Committee is asked to assign a percentage rating to the extent to which the goal, as qualified above, is achieved
- The Review Committee is asked to point out noteworthy strengths and also opportunities for improvement in effectiveness or efficiency

Performance measure custodian: EH&S Reporting

**Performance measurement validation:** The independence of the majority of the members assures the validity of the results.

Scoring: Based directly on percentage rating by Review Committee. The non-linear relationship to the percentage of assigned points reflects the subjectivity necessarily associated with a small review committee.

Performance Level (Score, %)	Adjectival Rating	% of Assigned Points†
$80 \text{ to} \ge 100$	Outstanding	90 to 100
70 to < 80	Excellent	80 to <90
60 to < 70	Good	70 to <80
50 to < 60	Marginal	60 to <70
40 to < 50	Unsatisfactory (Poor)	50 to <60
0 to < 40	Unsatisfactory (Failing)	0 to <50

<sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed.

# 5.6 Fraction of high-value facilities rated "Highly Protected Risk." [4 points]

#### Introduction:

Goal: All high-value facilities meet insurance carrier criteria for Highly Protected Risk designation.

#### **Oualifiers:**

• A facility is a separate building and its contents

- A facility is high-value if it has a maximum credible fire loss of \$1 million or more
- A facility is high-value if it is mission essential
- A facility is mission essential if its maximum credible fire loss would result in more than a three month programmatic delay

**Data collection:** Facilities which are high-value are determined by the Plant Engineering Director, with DOE Site Office concurrence. Information required to classify the level of fire protection is collected by representatives from the technical services group of SURA's fire and property insurance carrier.

**Data evaluation:** Performed by representatives from the technical services group of SURA's fire and property insurance carrier

Performance measure custodian: EH&S Reporting

**Performance measurement validation:** Site Office concurrence ensures that the high-value facilities are correctly identified. The fact that the same insurance carrier classifies the fire protection risk and provides SURA's fire coverage assures accuracy in the classification.

Scoring: Based directly on fraction of high-value facilities meeting criteria.

Performance Level (Score)	Adjectival Rating	% of Assigned Points†
0.95 to 1.00	Outstanding	90 to 100
0.90 to < 0.95	Excellent	80 to <90
0.85 to < 0.90	Good	70 to <80
0.80 to < 0.85	Marginal	60 to <70
0.75 to < 0.80	Unsatisfactory (Poor)	50 to <60
0.00 to < 0.75	Unsatisfactory (Failing)	0 to <50

<sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed.

# 6. Quality of Business and Administrative Practices 6A. Overview

Objective: Maintaining effective and efficient business and administrative practices at Jefferson Lab.

#### **Key Indicator (70 points)**

#### 6.0 Peer Review

General Charge to Peer Review Panel: With DOE concurrence, SURA will issue the charge to the Panel. Generally, the charge will be to assess the overall strengths and weaknesses of the Laboratory's business and administrative infrastructure, with a special focus each year on one of these Secondary Indicator Areas below. More detailed guidance will be developed based on special circumstances at the time of the review. To achieve this objective, review each major overhead/indirect cost area. Areas to be reviewed include:

- Self assessment
- · Contractual requirements and performance standards
- · Annual objectives
- Internal audits
- · External reviews
- Benchmarking efforts

The Panel will have access to Secondary Indicators as input to its review.

Frequency and Duration: Annually, three days, with final report due 30 days from last day of review

<u>Panel composition</u>: A five to six member panel, selected by mutual agreement of SURA and DOE, and consisting of CAO equivalents from private industry, national laboratories and the scientific community (including one from the Jefferson Lab user community).

#### Secondary Indicators (30 points)

## **FACILITIES MANAGEMENT (6 points)**

Objective: To manage non-capital and GPP construction projects to maximize the expenditure of funds on actual construction and complete these projects on time and within budget. Real properties usage is optimized. Facilities are adequately maintained and operated to minimize life cycle costs.

6.1 Percentage of overrun on all projects greater than \$100K (contracted price). [1 point]

- 6.2 Variance of scheduled completion time for projects greater than \$100K and of annual milestones of multi-year projects greater than \$100K. [1 point]
- 6.3 Percentage of scheduled preventive maintenance tasks completed by their scheduled due dates. [2 points]
- 6.4 Average percentage of open corrective maintenance tasks (not including those designated Discretionary) that have been open for greater than 3 months. [2 points]

#### PROPERTY MANAGEMENT AND PROTECTION (6 points)

Objective: Establish, implement and maintain effective management practices for the control, utilization and disposal of personal property, promote cost economies and efficiencies that result in improved processes, customer satisfaction and the elimination of waste. Such practices cross programmatic lines and contribute to the mission accomplishment of DOE and/or the Laboratory. The Laboratory will, in addition, ensure effective protection of proprietary information, personnel, property and the general public in an effective, cost efficient, risk based and graded manner.

- 6.5 Percentage of value of property not located during the inventory cycle for each of the inventories conducted: capital equipment (biannual odd fiscal years only), sensitive items (annual), and stores (annual). [5 points]
- 6.6 Stores Inventory metric<sup>1</sup>. [1 point]

#### FINANCIAL MANAGEMENT (6 points)

Objective: Assure effective planning, execution, and monitoring of budgets. Assure effective cash and debt management. Assure cost accounting system is in compliance with Cost Accounting Standards and that Disclosure Statement is current, complete, accurate, and reflective of the accounting system; assure financial practices are in conformance with the approved Disclosure Statement. Assure indirect cost activities are well managed. Assure SURA's internal audit control program maintains accuracy of the financial data, safeguards DOE assets, and prevents fraud, waste, and abuse.

- 6.7 Number of Cost Accounting Standards violations resulting from nonconformance with the approved Disclosure Statement, unless following DOE directives. [1 point]
- 6.8 Dollar percentage of invoices presented for payment deemed unallowable by the Contracting Officer as highlighted in the annual transaction testing audit and any IG audits that take place during the year. [1 point]
- 6.9 Percentage of vendor invoices paid with discounts lost. [1 point]

<sup>&</sup>lt;sup>1</sup> This metric will be defined and submitted by 3/31/2000 in conjunction with the DOE Site Office.

- 6.10 Percentage of annual actual cost variance from budget for each overhead pool. [1 point]
- 6.11 Number of occurrences that the monthly Cost Management Report (533M) had to be resubmitted to the DOE Contracting Officer to correct erroneous data reported by the Lab. [1 point]
- 6.12 Number of travel expense reports taken from a 10% random sample of Department audited expense reports that contained an error exceeding \$100 that was not detected at the time the expense report was originally audited by Business Services. [1 point]

#### PROCUREMENT (6 points)

Objective: Assure procurement functions are carried out so as to be cost effective, meet contractual requirements, satisfy customers' needs, and meet socioeconomic goals.

- 6.13 Average procurement cycle time to award a small purchase order above the micro-purchase threshold (all actions >\$2,500 <\$100,000). [3 points]
- 6.14 Percent of total available purchasing dollars awarded to: small business concerns; small women-owned business concerns; and small disadvantaged business concerns. [3 points]

#### **HUMAN RESOURCES AND SERVICES (6 points)**

Objective: Attract and retain a diverse workforce capable of successfully executing Jefferson Lab's mission. Provide a workplace environment conducive to employee well-being and growth. Maintain innovative compensation practices aligned with the market place to attract and retain a diverse, well-trained workforce. Maintain innovative and cost-effective health care programs aligned with the commercial market place for similarly situated workforce programs.

- 6.15a Percent of action oriented diversity commitments, as established in the Affirmative Action Plan (AAP) completed during the fiscal year. [1 point]
- 6.15b Representation of protected classes (PC) within each EEO-1 category at the end of the fiscal year compared to the beginning of the fiscal year (adjusted for voluntary separations). [1 point]
- 6.16 Sustainable EEOC charges. [1 point]
- 6.17 Achieve compensation positions aligned with market practices to reflect the Lab's midmarket compensation philosophy. [1.5 points]
- 6.18 Percent of three-year rolling average of annual increases in premium cost relative to market. [1.5 points]

# 6B. Performance Evaluation Plan

#### 6.0 Peer Review [70 Points]

#### Introduction:

The "Key Indicator" for this performance objective will be based on a "peer review" of the Laboratory's administrative system. Associated with the peer review are a set of secondary indicators (performance measures 6.1 - 6.18 listed below) that will be used to monitor the Laboratory's administrative performance in a more detailed way and to extend the validity of the peer review.

Scoring: The Peer Review Panel will assign an adjectival rating to the performance of the laboratory in producing quality business and administrative practices, and an associated percentage of the Key Indicator points within the ranges associated with that rating, according to the following Table:

Adjectival Rating	% of Assigned Points	
Outstanding	90 to 100	
Excellent	80 to < 90	
Good	70 to < 80	
Marginal	60 to < 70	
Unsatisfactory (Poor)	50 to < 60	
Unsatisfactory (Failing)	0 to < 50	

## FACILITIES MANAGEMENT (6 points)

# 6.1 Percentage of overrun on all projects greater than \$100K (contracted price) [1 point]

#### Introduction:

Maintain level of construction control to limit change orders and cost overruns to only those which bring added value to the project or are appropriate to produce the desired end product. Performance level will be calculated from the initial bid (contracted) amounts compared to the final contract amounts considering all applicable funding increases for all appropriate contracts closed out during the rating period. Increases considered not applicable are those whose root cause is:

- Post-design programmatic change by user (physical or schedule)
- New technology deemed a value-added inclusion (post-award)
- Value engineering proposals accepted (both additive and deductive)

Value determined will be expressed as a percent overrun.

Performance Level = [(Applicable Final Contract Cost/Initial Contract Amount) - 1] \* 100

#### Scoring:

Performance Level	Adjectival Rating	% of Maximum Assigned Points
<b>≤8%</b>	Outstanding	100
$> 8\%$ to $\le 12\%$	Excellent	85
$> 12\%$ to $\le 18\%$	Good	75
$> 18\%$ to $\le 25\%$	Marginal	60
$> 25\%$ to $\le 35\%$	Unsatisfactory (Poor)	50
> 35%	Unsatisfactory (Failing)	. 0

6.2 Variance of scheduled completion time for projects greater than \$100K and of annual milestones of multi-year projects greater than \$100K. [1 point]

#### Introduction:

Calculation of performance toward this goal will be made by comparing the actual number of days to completion of an identified project (or to a designated milestone) to the number specified contractually. This will be expressed as a coefficient of actual divided by contracted. Additional time attributed to the following categories will not be included for the purpose of this metric:

- Acts of God (as contractually accepted)
- Labor disputes/strikes
- Documented material unavailability (contractually accepted)
- · User desired post-award change orders for which additional time is appropriate

<u>Scoring</u>: For purposes of this report, "completion" shall be when the project is physically complete; turned over to user or beneficial occupancy taken.

Performance Level	Adjectival Rating	% of Maximum Assigned Points
≤ 1.10	Outstanding	100
> 1.10 to ≤ 1.25	Excellent	85
> 1.25 to ≤ 1.30	Good	75
> 1.30 to ≤ 1.40	Marginal	60
$> 1.40$ to $\le 1.50$	Unsatisfactory (Poor)	50
> 1.50	Unsatisfactory (Failing)	0

6.3 Percentage of scheduled preventive maintenance tasks completed by their scheduled due dates. [2 points]

# Scoring:

Performance Level = PMs completed as scheduled PMs scheduled

where PM is defined to be Total Preventive Maintenance actions scheduled per unit time. Activities considered for FY2000 will include mechanical equipment, electrical distribution system, and fire detection/suppression system (water based) subcontracted maintenance. Tasks

that are prohibited by operations and so documented will be rescheduled. The new completion date will be used for performance level calculation.

Performance Level	Adjectival Rating	% of Maximum Assigned Points
≥ 94%	Outstanding	100
≥ 90% to < 94%	Excellent	90
≥ 84% to < 90%	Good	75
≥ 79% to < 84%	Marginal	60
≥ 75% to < 79%	Unsatisfactory (Poor)	50
< 75%	Unsatisfactory (Failing)	0

6.4 Average percentage of open corrective maintenance tasks (not including those designated Discretionary) that have been open for greater than 3 months. [2 points]

Scoring: Identified maintenance needs will be categorized as follows:

- Corrective Maintenance (CM) Critical tasks which could lead to greater problems or costs within a 3-6 month period if corrective maintenance is not accomplished in a timely manner.
- Discretionary Corrective Maintenance (DCM) Identified problems that should be accomplished for system integrity, but do not fit the criticality for CM designation.

The performance level will be compiled on a quarterly basis from input provided by the maintenance subcontractors as addressed in Indicator 6.3. Only data relative to CM tasks will be used in the calculations, and the ratio will be obtained by:

Performance Level = 
$$\frac{\text{CMs open} > 3 \text{ months}}{\text{CMs open}}$$

The comments of Indicator 6.3 relative to operations interference apply.

Performance Level	Adjectival Rating	% of Maximum Assigned Points
< 10%	Outstanding	100
> 10% to < 18%	Excellent	85
> 18% to < 28%	Good	75
> 28% to < 35%	Marginal	60
> 35% to < 40%	Unsatisfactory (Poor)	50
> 40%	Unsatisfactory (Failing)	. 0

#### PROPERTY MANAGEMENT AND PROTECTION (6 points)

6.5 Percentage of value of property not located during the inventory cycle for each of the inventories conducted: capital equipment (biannual - odd fiscal years only), sensitive items (annual), and stores (annual). [5 points]

# Scoring:

Performance Level = [(Value of property not located during each of the inventories / Corresponding value of property for each class inventoried) \* 100]

Submeasure	Frequency	Odd Years	Even Years
6.5a Capital Equipment	biannual	2 points	0 pts. (not conducted)
6.5b Sensitive	annual	2 points	4 points
6.5c Stores	annual	1 point	1 point

Performance Level	Adjectival Rating	% of Maximum Assigned Points
< 1%	Outstanding	100
≥ 1% to < 1.5%	Excellent	85
≥ 1.5% to < 2%	Good	70
≥ 2.0% to < 3%	Marginal	55
≥ 3.0% to < 4.0%	Unsatisfactory (Poor)	40
≥ 4.0%	Unsatisfactory (Failing)	0

#### 6.6 Stores Inventory turnover rate. [1 point]

This metric is being developed in order to accurately measure performance related to the transition of the stockroom from the construction phase to the steady state phase of the Lab. Final metric to be submitted by 3/31/2000.

#### FINANCIAL MANAGEMENT (6 points)

6.7 Number of Cost Accounting Standards violations resulting from nonconformance with the approved Disclosure Statement, unless following DOE directives. [1 point]

#### Scoring:

Performance Level	Adjectival Rating	% of Maximum Assigned Points
no violations	Outstanding	100
one violation	Excellent	85
two violations	Good	70
three violations	Marginal	55
four violations	Unsatisfactory (Poor)	40
five violations	Unsatisfactory (Failing)	0

6.8 Dollar percentage of invoices presented for payment deemed unallowable by the Contracting Officer as highlighted in the annual transaction testing audit and any IG audits that take place during the year. [1 point]

#### Scoring:

Performance Level	Adjectival Rating	% of Maximum Assigned Points
0% to 1%	Outstanding	100
< 1% to 2%	Excellent	85
< 2% to 3%	Good	70
< 3% to 4%	Marginal	55
< 4% to 5%	Unsatisfactory (Poor)	40
< 5%	Unsatisfactory (Failing)	0

6.9 Percentage of vendor invoices paid with discounts lost. [1 point]

Scoring: The measure of percentage of invoices available for discount and not successfully taken as a percentage of invoices processed with discounts plus invoices with discounts lost are:

Performance Level	Adjectival Rating	% of Maximum Assigned Points
0% to 1%	Outstanding	100
< 1% to 2%	Excellent	85
< 2% to 3%	Good	70
< 3% to 4%	Marginal	55
< 4% to 5%	Unsatisfactory (Poor)	40
< 5%	Unsatisfactory (Failing)	0

6.10 Percentage of annual actual cost variance from budget for each overhead pool. [1 point]

#### Scoring:

Performance Level	Adjectival Rating	% of Maximum Assigned Points
0% to 3.0% variance	Outstanding	100
3.1% to 6.0% variance	Excellent	85
6.1% to 9.0% variance	Good	70
9.1% to 12.0% variance	Marginal	55
12.1% to 15.0% variance	Unsatisfactory (Poor)	40
> 15% variance	Unsatisfactory (Failing)	0

6.11 Number of occurrences that the monthly Cost Management Report (533M) had to be resubmitted to the DOE Contracting Officer to correct erroneous data reported by the Lab. [1 point]

#### Scoring:

Performance Level	Adjectival Rating	% of Maximum Assigned Points
0 occurrences	Outstanding	100
1 occurrence	Excellent	85
2-3 occurrences	Good	70
4-5 occurrences	Marginal	55
6-7 occurrences	Unsatisfactory (Poor)	40
≥ 8 occurrences	Unsatisfactory (Failing)	0

6.12 Number of travel expense reports taken from a 10% random sample of Department audited expense reports that contained an error exceeding \$100 that was not detected at the time the expense report was originally audited by Business Services. [1 point]

#### Scoring:

Performance Level	Adjectival Rating	% of Maximum Assigned Points
0% -2.0%	Outstanding	100
2.1% - 5.0%	Excellent	85
5.1% - 10%	Good	70
10.1% - 15%	Marginal	55
15.1% - 20%	Unsatisfactory (Poor)	40
> 20%	Unsatisfactory (Failing)	0

#### PROCUREMENT (6 points)

6.13 Average procurement cycle time to award a small purchase order above the micro-purchase threshold (all actions >\$2,500 <\$100,000). [3 points]

#### Introduction:

Procurement cycle time is based on the date the purchase requisition is received in Procurement until the action is awarded, but does not include the time required to establish new vendors or time required by Jefferson Lab requisitioners to correct deficient requisition documentation.

#### Scoring:

Performance Level	Adjectival Rating	% of Maximum Assigned Points
Less than 14 Calendar Days	Outstanding	100
> 14 to < 21 Calendar Days	Excellent	85
> 21 to < 35 Calendar Days	Good	70
> 35 to < 42 Calendar Days	Marginal	55
> 42 to < 49 Calendar Days	Unsatisfactory (Poor)	40
> 49 Calendar Days	Unsatisfactory (Failing)	0

6.14 Percent of total available purchasing dollars awarded to: small business concerns; small women-owned business concerns; and small disadvantaged business concerns. [3 points]

#### Introduction:

- Total estimated dollar value of all planned subcontracting (to Large and Small Business concerns): \$12,200,000.
- "Total Available Purchasing Dollars" excludes: (i) awards to Government sources (including awards on GSA price schedules to large business firms); (ii) awards to nonprofit institutions (including but not limited to universities and national labs); (iii) awards to foreign sources; and (iv) micropurchases (awards ≤ \$2,500).
- Awards to women-owned business concerns, and small disadvantaged business concerns will be counted for every Submeasure that is applicable.

#### FY99 Peak Performance Goals (PPG):

- Submeasure 6.14a: Award 45% of total available purchasing dollars (est. \$5,490,000) to small business concerns (1 point)
- Submeasure 6.14b: Award 6% of available purchasing dollars (est. \$732,000) to women owned business concerns (1 point)
- Submeasure 6.14c: Award 6% of available purchasing dollars (est. \$732,000) to small disadvantaged business concerns (1 point)

Scoring: In each submeasure, scoring relative to peak performance goals will be:

Performance Level	Adjectival Rating	% of Maximum Assigned Points
100%	Outstanding	100 .
90% to < 100%	Excellent	85
70% to < 90%	Good	70
60% to < 70%	Marginal	55
50% to < 60%	Unsatisfactory (Poor)	40
< 50%	Unsatisfactory (Failing)	0

#### **HUMAN RESOURCES AND SERVICES (6 points)**

6.15a. Percent of action oriented diversity commitments, as established in the Affirmative Action Plan (AAP), Section VII-C, completed during the fiscal year. [1 point]

Scoring: AAP Assessment Factor = # of action oriented diversity commitments

Total # of action oriented diversity commitments

Performance Levels	Adjectival Rating	% of Maximum Assigned Points	
Achieve > 90% of diversity commitments	Outstanding	100	
Achieve 80% to < 90% of diversity commitments	Excellent	85	
Achieve 70% to < 80% of diversity commitments	Good	70	
Achieve 55% to < 70% of diversity commitments	Marginal	55	
Achieve less 55% of diversity commitments	Unsatisfactory	40	

6.15b. Representation of protected classes (PC) within each EEO-1 category at the end of the fiscal year compared to the beginning of the fiscal year (adjusted for voluntary separations). [1 point]

Scoring: PC Assessment Factor = % of PC to total workforce at the end of FY99 within each EEO-1 category

% of PC to total workforce at the beginning of FY99 within each EEO-1 category

where:

Total Workforce = Total number of regular and term employees

(excludes casuals, temps, and students)

EEO-1 Category = Occupational job categories as defined by EEOC (N=10)

Protected Classes (PC) = Women and minorities as defined by EEOC

(N = 20): 2PC \* 10 EEO-1 categories

Note: EEO-1 categories where Utilization percentages meet or exceed Availability percentages are determined to be fully in compliance with this metric.

Performance Levels	Adjectival Rating	% of Maximum Assigned Points	
Maintain beginning PC factor in 100% of	Outstanding	100	
protected classes		,	
Maintain 85% to < 100% of protected classes	Excellent	85	
Maintain 70% to < 85% of protected classes	Good	70	
Maintain 50% to < 70% of protected classes	Marginal	55	
< 50% of protected classes	Unsatisfactory	40	

#### 6.16 Sustainable EEOC charges. [1 point]

#### Scoring:

Performance Level	Adjectival Rating	% of Maximum Assigned Points
0 charges	Outstanding	100
1 charge	Good	80
> 1 charge	Unsatisfactory	0

6.17 Achieve compensation positions aligned with market practices to reflect the Lab's midmarket compensation philosophy. [1.5 points]

Scoring: Compensation Factor =  $\sum$  (weighted average salary within each classification)  $\sum$  (weighted salary range midpoint\* within each classification)

<sup>\*</sup>Assumes salary range midpoints reflect mid-market position

Performance Level	Adjectival Rating	% of Maximum Assigned Points
Average salaries within ±3.0% of market average	Outstanding	100
Average salaries within +3.1% to +5.0% of market average	Excellent	80
Average salaries within +5.1% to +7.0% of market average	Good	70
Average salaries within +7.1% to +10.0% of market average	Marginal	60
Average salaries greater than +10.0% of market average	Unsatisfactory	50

# 6.18 Percent of three-year rolling average of annual increases in premium cost relative to market. [1.5 points]

Performance Level	Adjectival Rating	% of Maximum Assigned Points	
5% or more below market data	Outstanding	100	
Up to 4.9% below market or no more than 2.0% above market	Excellent	80	
2.1% to 5.0% above market	Good	70	
5.1% to 8.0% above market	Marginal	60	
8.1% to 12.0% above market	Unsatisfactory (Poor)	50	
12.1% or more above market	Unsatisfactory (Failing	0	

# 7.0 Responsible Institutional Management

#### 7A. Overview

Objective: To manage and operate Jefferson Lab in accordance with generally accepted quality management principles so as to achieve its mission goals in a cost effective manner while satisfying its customers, and providing a culture which builds trust and facilitates continuous improvement in all areas of the institution.

#### **Key Indicator (100 points)**

#### 7.0 Peer Review

General Charge to Peer Review Panel: With DOE concurrence, SURA will issue the charge to the Panel. Generally, the charge will be to assess overall institutional management of Jefferson Lab with emphasis on the three criteria of strategic planning, managerial effectiveness, and organizational culture. More detailed guidance will be developed based on special circumstances at the time of the review. All other metrics provided for in this Appendix are made available to this committee as well as the results of external and internal reviews during the performance period.

<u>Frequency and Duration:</u> Two days every 2 years, divided between presentations, site tours/inspections, and report drafting. The final report is due 30 days from conclusion of review.

Panel composition: A panel selected by mutual agreement of SURA and DOE, and consisting of:

- 1 DOE Lab Director
- 1 CAO
- 1 Industrial Chief Scientist
- 1 University Provost or President with Scientific/Engineering Credentials
- 1 International Lab Director
- Chairs of the Outstanding Science and Technology Peer Review and of the Quality of Business and Administrative Practices Peer Review.

Prior to the selection of the panel members, the composition of the panel may be adjusted, by mutual agreement of SURA and DOE, to match the programs and activities of the Laboratory and the special circumstances to be addressed by the review.

Note: This review was held in FY96 and again in FY98. The same score achieved in FY96 was carried forward to FY97 and included in the FY97 performance evaluation calculation. The same score achieved in FY98 was carried forward to FY99 and included in the FY99 performance evaluation calculation. The score received in the upcoming FY2000 review will be carried forward and included in the FY2001 performance evaluation calculation.

#### 7B. Performance Evaluation Plan

#### Peer Review Criteria:

#### Strategic Planning: (40%)

- Responsiveness to national scientific and technical priorities, to the DOE Strategic Plan and other DOE guidance, and to user community requirements in the development of the Jefferson Lab scientific program. Also includes "institutional citizenship" within the DOE lab system and with respect to the state and local communities.
- Identification and cultivation of core competencies that eliminate unnecessary duplication and overlap in advancing the national/international knowledge and resource base.
- Leadership on national/international scale in mission related competencies.

#### Managerial Effectiveness: (40%)

- Cost effective use of available resources to optimize benefits for the nation's scientific agenda.
- Consistently meets or exceeds established commitments
- Responsible programmatic, EH&S and administrative balance
- Cost reductions through process improvement and reengineering

#### Organizational Culture (20%)

- Advocacy of quality principles to enhance staff performance
- Open, accurate, timely internal and external communications, including communications with the state and local communities
- Promotes diversity
- Sustained high morale and productivity

Tefferson Lab

Thomas Jefferson National Accelerator Facility
Operated by the Southeastern Universities Research Association for the U. S. Department of Energy

Distribution:

Hermann Grunder Larry Cardman

Nathan Isgur Ron Sundelin

Sally Fisk

#### **MEMORANDUM**

To:

**Contract Steering Committee** 

Jerry Conley Wayne Skinner Cristoph Leemann Roy Whitney

John Mullin

From:

Jennifer Moog, Administration Division Administrator

Subject:

Final FY 2000 Appendix B

Date:

February 1, 2000

Attached is the final version of the FY2000 Appendix B. This document is the result of various discussions and negotiations between staff from the Jefferson Lab and the DOE Site Office. The document reflects the agreed upon Appendix B performance metrics for use in FY 2000.

AMENDMENT OF SOLICITATION	MODIFICATION	OF CONTRACT	1. C	ONTRACT ID	CODE	PAGE OF	PAGES
AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURG	HAS	F DEO NO	5. PROJECT	NO (Kenn	2
M180	See Block 16C	4. REGOIST TOTATION	., i.a.	- Ke <b>u</b> . 110.	O. PRODUCT	140. (1/ црр	HCGO#E)
ISSUED BY	pee prock roc	7. ADMINISTERED BY	(If o	ther than Item	<u> </u>	<u> </u>	
U.S. Department of Energy TJNAF Site Office 12000 Jefferson Avenue Newport News, VA 23606					CODE		
, NAME AND ADDRESS OF CONTRACTOR (No.	street county State and	ZIP Code)	1 77	9A. AMENDA	ENT OF SOI	ICITATION	NO.
, NAME AND ADDRESS OF CONTRACTOR (AB.	, street, county, state and	·	(6)	-			. 110 <sub>k</sub>
Southeastern Universit	ies			<u> </u>			į.
Research Association	•		Ì	9B. DATED	SEE ITEM 11	,	<del></del>
1200 New York Avenue,			1				
Washington, D.C. 20005	5			10A. MODIFI	CATION OF	CONTRACT	ORDER
		•	1				1
			1	1	-84ER40]		
			X	10B. DATED	(SEE ITEM 1	3)	• • •
CODE	FACILITY CODE		1	August	3, 1984	Į	
11. THIS ITE	MONLY APPLIES TO	AMENDMENTS OF S	OLIC	CITATIONS			:
The above numbered solicitation is amended as	set forth in Item 14. The I	nour and date specified fo	rece	pt of Offers	is extend	ed, 🔲 i	s not ex-
MENT TO BE RECEIVED AT THE PLACE DESIG IN REJECTION OF YOUR OFFER. If by virtue cletter, provided each telegram or letter makes refere 12. ACCOUNTING AND APPROPRIATION DATA	of this amendment you des note to the solicitation and	ire to change an offer alreathis amendment, and is re	edy su	bmitted, such o	change may be ening hour ar	e made by te	legram or
13. IHIS ITEM A	THE CONTRACT/ORI	DER NO AS DESCRI	SED	IN ITEM 14	no,		
A. THIS CHANGE ORDER IS ISSUED PURS	UANT TO: (Specify authority)	ority) THE CHANGES SE	T FO	RTH IN ITEM	4 ARE MAD	E IN THE C	ON-
B. THE ABOVE NUMBERED CONTRACT/O appropriation date, etc.) SET FORTH IN I	RDER IS MODIFIED TO	REFLECT THE ADMINIS	TRA	TIVE CHANGE	S (such as ch	anges in pay	ing office,
C. THIS SUPPLEMENTAL AGREEMENT IS						<u></u>	
Clause H 35 "Contractor (				ated Febru	arv 9.	2000.	
D. OTHER (Specify type of modification and					2 .		<del></del>
						٠,	
		· · · · · · · · · · · · · · · · · · ·	····	2			
	is required to sign t				es to the issu		
14. DESCRIPTION OF AMENDMENT/MODIFICA	TION (Organized by UCF	section headings, includin	g solic	itation/contrac	t subject mat	ter where fea	sible.)
1. The purpose of t	his modification	is to revise c	laus	se H35 en	ntitled '	"Contrac	ctor
Contributions" a	s attached.	,					
2. All other terms	and conditions r	emain the same.					
•	·	3.					
•							
Except as provided herein, all terms and conditions	of the document reference	ed in Item 9A or 10A, as h	ereto	fore changed, re	emains uncha	nged and in f	ull force
and effect.  15A. NAME AND TITLE OF SIGNER (Type or pr		I16A, NAME AND TIT					
Jama G, MULLIN	****/						
SR. VICE. PRESIDENT, OPERATIONS		James W. S	kin	ner, Cont	racting	Officer	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGN	ED 168. UNITED STATE		· -			E SIGNE
ansmu-		BY James	-N	1X Cenne	<u>'1</u>	- 2/25	lon
(Signature of person authorized to sign)	2/25/00	(Signatu	re of (	Contracting Off	icer)	170	,
والمتعادلة التربيب والمتعادلة المرابط والتأثيث والمرابط والمتعادلة والمتعادلة والمتعادلة والمتعادلة والمتعادلة		V					

#### **CLAUSE H.35 - CONTRACTOR CONTRIBUTIONS**

- (a) A sublease agreement separate from this contract has been executed between DOE and SURA, covering the Virginia Associated Research Campus (VARC) building and the property adjacent thereto.
- (b) The City of Newport News, Virginia has donated to SURA approximately 44.6 acres of land which SURA in turn conveyed to DOE in fee simple at no cost to the Government. The City also donated approximately 51.5 acres of land adjacent to the Government-owned site. SURA has, in turn, donated to DOE approximately 7.9 acres of land in fee simple free of charge.
- (c) The Commonwealth of Virginia has appropriated funds for employees and certain other funds to SURA for Jefferson Lab. The Commonwealth of Virginia employees have been and will continue to be under SURA's supervision; however, the salaries and benefits of the said employees are not reimbursable under this contract, except for overtime and any proportionate fringe benefits associated with overtime paid to such employees by the Commonwealth of Virginia. Any such overtime for which SURA reimburses the Commonwealth of Virginia shall be properly authorized by SURA and the amount thereof shall be in accordance with established Commonwealth of Virginia compensation policies. SURA shall continue to utilize funds contributed by the Commonwealth for the benefit of SURA and consistent with the requirements of the Commonwealth.
- (d) The Commonwealth of Virginia has also authorized SURA to expend a stated amount from the General Fund of the Commonwealth of Virginia as the Commonwealth's share in the development of certain technology transfer initiatives at Jefferson Lab. In addition, the SURA Board of Trustees has authorized funds for the development of the FEL facility. Expenditures of these and similar funds shall be made by SURA in accordance with an Accounting and Procurement Policies and Procedures document approved by SURA management, and the use of DOE rules and regulations which are designated for the expenditure of contract funds shall not be applicable to funds provided by the Commonwealth. SURA further agrees to: (1) Keep the Manager of the DOE Site Office advised of all key technical and management decisions of any project funded with Commonwealth of Virginia and SURA funds; and, (2) Hold the Department of Energy harmless for any cost associated with any agreement or subcontract solicitation, award or dispute when SURA intends to use Commonwealth of Virginia or SURA funds for any portion of the subject agreement or subcontract. "
- (e) The contributions to SURA by the Commonwealth of Virginia in the form of personnel and funds are not accountable to the Government. In addition, contributions to SURA by the SURA Board of Trustees in the form of funds are not accountable to the Government. However, SURA shall provide an annual report to the Contracting Officer on the amount of funds appropriated by the Commonwealth and the SURA Board of Trustees and the general purpose for which such funds were used.

AMENDMENT OF SOLICITATION	/MODIFICATION C	F CONTRACT	1. C	ONTRACT ID	CODE	PAGE OF PAGES
2. AMENDMENT/MODIFICATION NO. A181	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURC	HASI	E REQ. NO.	5. PROJECT	NO. (If applicable)
6. ISSUED BY CODE		7. ADMINISTERED BY	(If of	her than Item (	CODE	
U.S. Department of Energy TJNAF Site Office 12000 Jefferson Avenue Newport News, VA 23606						
8. NAME AND ADDRESS OF CONTRACTOR (No.	, street, county, State and Z	IP Code)	(4)	9A. AMENDM	ENT OF SOLI	CITATION NO.
Southeastern Universiti Research Association, 1200 New York Avenue, N Washington, D.C. 20005	Inc. W	•		NO.		ontract/order L50
			X	10B. DATED		
CODE	FACILITY CODE				st 3, 1984	<u> </u>
11. THIS ITE	M ONLY APPLIES TO	AMENDMENTS OF SC	LIC	TATIONS	<del></del>	<del></del>
Offers must acknowledge receipt of this amendment  (a) By completing Items 8 and 15, and returning submitted; or (c) By separate letter or telegram wh MENT TO BE RECEIVED AT THE PLACE DESIG IN REJECTION OF YOUR OFFER. If by virtue of letter, provided each telegram or letter makes refere  12. ACCOUNTING AND APPROPRIATION DATA  Increase \$6,324  13. THIS ITEM AN IT MODIFIES  A. THIS CHANGE ORDER IS ISSUED PURS TRACT ORDER NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/O appropriation date, etc.) SET FORTH IN ITEM C. THIS SUPPLEMENTAL AGREEMENT IS  D. OTHER (Specify type of modification and X Increase in obligation O  E. IMPORTANT: Contractor X is not,  14. DESCRIPTION OF AMENDMENT/MODIFICA	copies of the amendrich includes a reference to to NATED FOR THE RECEIP of this amendment you desire nee to the solicitation and the contract of the solicitation and the contract of the cont	nent; (b) By acknowledging the solicitation and amend T OF OFFERS PRIOR TO the to change an offer alreading amendment, and is recommon to the total solicitation of the total	TRATER 43.	ceipt of this am numbers. FAIIE HOUR AND bmitted, such o prior to the op ACTS/ORDER N ITEM 14.  RITH IN ITEM 14.  RIVE CHANGE 103(b).  I.79, "Ob copie	nendment on ea LURE OF YOU DATE SPECIF change may be a change may be a change hour and RS, L4 ARE MADE ES (such as char ligation	ch copy of the offer IR ACKNOWLEDG-IED MAY RESULT made by telegram or date specified.  IN THE CON-  IN THE CON-  Of Funds.  In ges in paying office,  of Funds.
	S	EE FOLLOWING PA	GES			
Except as provided herein, all terms and conditions	of the document referenced	i in item 9A or 10A, as he	retof	ore changed, re	emains unchang	ed and in full force
and effect.  15A. NAME AND TITLE OF SIGNER (Type or pr		16A. NAME AND TITL				
TON. HAMIL AND THELE OF STATES (1994 OF )		James W.	•		•	Officer
15B. CONTRACTOR/OFFEROR	15C, DATE SIGNE	BY Janu V	11.0	Hanne	$\hat{j}$	16C. DATE SIGNE 2-29-00
(Signature of person authorized to sign)		(Signature	of C	ontracting Offi	ičer)	

NSN 7540-01-152-8070 PREVIOUS EDITION UNUSABLE 30-105

STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243 1. The amount obligated under this contract is increased by \$6,324.67 and is changed from \$955,288,436.92 to \$955,294,761.59. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Fund Type	B&R Code	Change	FY00	To Date
	TIME 44000			
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	0.00	5,680,000.00	10,463,575.00
WA	KB0102011	0.00	40,805,000.00	80,465,411.00
WA	KB0102011 (AIP A001)	0.00	1,300,000.00	2,800,000.00
WA	KB0102011 (GPP)	0.00	300,000.00	600,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	6,100,000.00	14,630,041.00
WA	KB0102012	0.00	18,010,000.00	36,656,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	1,248,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	535,000.00	1,070,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	0.00	20,000.00
WA	KP1402010 (EQU)	0.00	0.00	240,000.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
YA	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00

Fund Type	B&R Code	Change	FY00	To Date
YA	KT0101017	0.00	0.00	442,000,00
YA	KT0101018	0.00	0.00	412,000.00
YA	KT0101019	0.00	0.00	31,350.00
YA	KT0101025	0.00	0.00	5,000.00
YA	KU0100000	0.00	0.00	9,702.00
YA	KT0201013	0.00	0.00	484,000.00
YA	WB0000000	0.00	0.00	87,300.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	116,000.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	29,800.00
1Y .	650102000 (AGR94-002)	0.00	30,000.00	80,100.00
YA	AT2540000	0.00	0.00	253,469.00
3T	400403309 (OP AGR000096)	0.00	0.00	5,000.00
<b>3</b> T	40403309 (OP AGR27199MPHS058)	0.00	0.00	11,744,355.00
YA	KJ0102000	0.00	0.00	12,135.92
WA	KJ0200000	0.00	0.00	420,346.00
WA	KJ0101030	0.00	50,000.00	50,909.00
TC ·	820201000 (OP)	0.00	250,000.00	100,000.00
TC	DP0404012 (OP)	0.00	0.00	849,853.00
TC	39DP04000	0.00	0.00	957,864.00
TC	39DP04040	0.00	400,000.00	644,134.00
2Y	600301010 (OP AGR98003105)	0.00	0.00	400,000.00
2Y	600305000 (OP AGR99W001)	6,324.67	344,324.67	200,000.00
SA	YN1901000	0.00	· ·	494,324.67
WA <sup>-</sup>	EL1703000(OPFWP #EL17039)	0.00	(348.00)	98,652.00
	TOTAL	\$6,324.67	<u>0.00</u> \$73,803,976.67	25,000.00
		ΨΟ,ΟΣΤ.ΟΙ	Ψεσίουσία το	\$955,294,761.59

<sup>2.</sup> All other terms and conditions of the contract remain unchanged and in full force and effect.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. C	1. CONTRACT ID CODE		PAGE O	F PAGES	
	3. EFFECTIVE DATE			E DEC NO 1	E DROJEA		3
A182	See Block 16C	4. REQUISITION/PURC	n MS	- KEW, NO.	5. PROJECT	140. (IT ap	pucable)
ISSUED BY	pee prock roc	7. ADMINISTERED BY	(If o	ther than Item 6	)	<del> </del>	<del></del>
U.S. Department of Energy TUNAF Site Office 12000 Jefferson Avenue Newport News, VA 23606	:				CODE		
B. NAME AND ADDRESS OF CONTRACTOR (No.,	street, county, State and	ZIP Code)	(d)	9A. AMENDM	ENT OF SOL	ICITATIO	N NO.
•		•	<u> </u>	1			
Southeastern Universiti		•					
Research Association,				9B. DATED (S	es itsm 11,	) '.'.	•
1200 New York Avenue, N Washington, D.C. 20005	W		<b>-</b>	10A. MODIFIC	ATION OF	CONTRAC	T/ORDE
washington, b.c. 20005	•			NO.	: •		
	•	•	,,	DE-AC05			
			X	10B. DATED		-	
CODE	FACILITY CODE	AMENDMENTS OF CO	<u></u>		3, 1984	· · · · · · · · · · · · · · · · · · ·	
11. 1115 11 E	MONLY APPLIES TO	AMENDMENTS OF SC	JLIC	TATIONS	_		***********
The above numbered solicitation is amended as tended.	set forth in Item 14. The h	our and date specified for	recei	pt of Offers L	is extende	ed, الــا	is not ex
IN REJECTION OF YOUR OFFER. If by virtue of letter, provided each telegram or letter makes referen 12. ACCOUNTING AND APPROPRIATION DATA Increase \$10,961,00	ce to the solicitation and to (If required)	re to change an offer alrea his amendment, and is rec	dy su eived	prior to the ope	nange may be ining hour an	made by a	elegram c
<u> </u>		ALEICATIONS OF CON	TO	CTC/ODDED	· · · · · · · · · · · · · · · · · · ·		<del> </del>
IT MODIFIES	PLIES ONLY TO MOD THE CONTRACT/ORD	DER NO AS DESCRIB	ED I	N ITEM 14	•	1 .	
W) A. THIS CHANGE ORDER IS ISSUED PURSU	JANT TO: (Specify autho	rity) THE CHANGES SET	FOI	RTH IN ITEM 1	4 ARE MAD	EIN THE	CON-
						184	
B. THE ABOVE NUMBERED CONTRACT/OF appropriation date, etc.) SET FORTH IN IT	RDER IS MODIFIED TO F EM 14, PURSUANT TO T	REFLECT THE ADMINIST HE AUTHORITY OF FAC	TRA R 43	TIVE CHANGE 103(b).	5 (such as ch	mges in pa	ying offic
C. THIS SUPPLEMENTAL AGREEMENT IS E		. ,					<del></del>
		<u> </u>					
D. OTHER (Specify type of modification and of X)  Increase in obligation of		dango rrith glave	. 1	70 "051;	astion o	of Eurod	le#
A licrease in obligation of	. Turos in accord	dance with claus		L. 19, ODII	gacion	J. Fuik	
E. IMPORTANT: Contractor k is not,	$\square$ is required to sign t	nis document and retur	ń	copie	s to the issu	ing office	ı.
14. DESCRIPTION OF AMENDMENT/MODIFICAT	FION (Organized by UCF)	ection headings, including	solic	itation/contract	subject matt	er where fe	asible.)
·							
		General Martine T			•		
		SEE FOLLOWING E	'AGI	55			
	·	, x · ·					
			٠				
			•				
							And de
Except as provided herein, all terms and conditions and effect.							
15A. NAME AND TITLE OF SIGNER (Type or pri	nt)	16A. NAME AND TITL	E OF	CONTRACTION	IG OFFICER	(Type or	print)
		James W. Ski	inn	er. Contra	cting O	fficer	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNE	D 16B. UNITED STATES	<del>-</del>				TE SIGNI
·		BY Javer 1	N.	Hinne	1	3/29	210-
(Signature of person authorized to sign)		(Signature	of C	ontracting Office	er)	12/2	0100

NSN 7540-01-152-8070 PREVIOUS EDITION UNUSABLE 1. The amount obligated under this contract is increased by \$10,961,000 and is changed from \$955,294,761.59 to \$955,255,761.59. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Fund Type	B&R Code	Change	FY00	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	200,000.00	5,880,000.00	10,663,575.00
WA	KB0102011	0.00	40,805,000.00	80,465,411.00
WA	KB0102011 (AIP A001)	0.00	1,300,000.00	2,800,000.00
.WA	KB0102011 (GPP)	0.00	300,000.00	600,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	6,100,000.00	14,630,041.00
WA	KB0102012	0.00	18,010,000.00	36,656,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	1,248,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	535,000.00	1,070,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	0.00	20,000.00
WA	KP1402010 (EQU)	0.00	0.00	240,000.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
YA	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00

Fund Type	B&R Code	Change	FY00	To Date
YA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00	87,300.00
YA	WB000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Ÿ	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR94-002)	0.00	30,000.00	253,469.00
YA	AT2540000	0.00	0.00	5,000.00
<b>3T</b>	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	40403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
YA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	50,000.00	100,000.00
TC	820201000 (OP)	(250,000.00)	0.00	599,853.00
TC	820201000 (OP TSKER4015000019)	500,000.00	500,000.00	500,000.00
TC	820201000 (OP TSKER40150TJAAA)	9,432,000.00	9,432,000.00	9,432,000.00
TC	820201000 (OP TSKER40150I111J)	1,065,000.00	1,065,000.00	1,065,000.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	(5,000.00)	395,000.00	395,000.00
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	344,324.67	494,324.67
2Y	600305000 (OP AGR2000W003)	14,000.00	14,000.00	14,000.00
2Y	600305000 (OP AGR2000W002)	5,000.00	5,000.00	5,000.00
SA	YN1901000	0.00	(348.00)	98,652.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
	TOTAL	\$10,961,000.00	\$84,764,976.67	966,255,761.59

<sup>2.</sup> All other terms and conditions of the contract remain unchanged and in full force and effect.

AAFAIDAFAIT OF OO! IO!TATIO	MODIFICATION	0F 00NTD 10F	1. C	ONTRACT ID	CODE	PAGE OF	PAGES
AMENDMENT OF SOLICITATION						1	3
2. AMENDMENT/MODIFICATION NO. M183	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PUR	CHAS	E REQ. NO.	5. PROJEC	T NO. (If appli	icable)
6. ISSUED BY CODE		7. ADMINISTERED BY	(If o	ther than Item (	CODE		
U.S. Department of Energy TUNAF Site Office 12000 Jefferson Avenue Newport News, VA 23606					·		
8. NAME AND ADDRESS OF CONTRACTOR (No.	. street, county. State and	ZIP Code)	(4)	9A. AMENDA	ENT OF SO	LICITATION	NO.
•		•	<del>(a)</del>				
Southeastern Universiti					•		
Research Association,				9B. DATED (	EE ITEM 1.	1)	
1200 New York Avenue, N Washington, D.C. 20005	IW.						
washing wif, D.C. 20005				10A. MODIFI	CATION OF	CONTRACT	ORDER
,				DE-AC05-	84FR401	50	
		•	x	10B. DATED		,	
CODE	FACILITY CODE		-	August	•		
	M ONLY APPLIES TO	AMENDMENTS OF S	OLIC				<del> </del>
		· · · · · · · · · · · · · · · · · · ·			7	m.	
The above numbered solicitation is amended as tended.	sectorm in item 14. The r	Tour and date specified to	rrecei	ptol Ollers L	is extend	1901, נייין ו	not ex-
Offers must acknowledge receipt of this amendment	prior to the hour and date	specified in the solicitation	on or a	s amended, by	one of the fo	ollowing metho	ods:
(a) By completing Items 8 and 15, and returningsubmitted; or (c) By separate letter or telegram wh MENT TO BE RECEIVED AT THE PLACE DESIG IN REJECTION OF YOUR OFFER. If by virtue cletter, provided each telegram or letter makes refere	ich includes a reference to NATED FOR THE RECEII of this amendment you desi	the solicitation and amend PT OF OFFERS PRIOR T ire to change an offer alrea	dment O TH adv su	numbers, FAII E HOUR AND bmitted, such o	URE OF YOU  DATE SPECT  hange may be	OUR ACKNOV IFIED MAY F be made by tele	VLEDG RESULT agram o
12. ACCOUNTING AND APPROPRIATION DATA			1,	. :			
	N/A				- 1		
	PPLIES ONLY TO MOD				RS,	<i>,</i> , ,	
IT MODIFIES	THE CONTRACT/ORE	DER NO. AS DESCRIE	BED I	N ITEM 14.			
A. THIS CHANGE ORDER IS ISSUED PURS	UANT TO: (Specify author	only) THE CHANGES SE	1 -01	CIHINIIEMI	4 ARE MAL	E IN THE CO	N-
B. THE ABOVE NUMBERED CONTRACT/O appropriation date, etc.) SET FORTH IN I	RDER IS MODIFIED TO I	REFLECT THE ADMINIS	TRA	LIVE CHANGE	S (such as ch	anges in payin	g office
25				103(b).			
C. THIS SUPPLEMENTAL AGREEMENT IS	ENTERED INTO PURSUA	INT TO AUTHORITY OF	-:				
D. OTHER (Specify type of modification and	authority)	·····					h
							<del></del>
E. IMPORTANT: Contractor is not,	is required to sign t	his document and retu	rn	copie	s to the iss	uing office.	
14. DESCRIPTION OF AMENDMENT/MODIFICA	-						ble.)
							٠
				٠			
	S	EE FOLLOWING PA	GES		•		
		, ν.					
		* .	*				
	•			•			
•							
Except as provided herein, all terms and conditions	of the document reference	d in Itam QA or 10A seh	ereto#	ore changed re	mains uncha	nged and in ful	il force
and effect.							
15A. NAME AND TITLE OF SIGNER (Type or pr	int)	16A. NAME AND TIT	LE OF	CUNTRACTI	NG OFFICE	R (Type or pri	nt)
		James W. S	kinr	er, Conti	acting	<b>O</b> fficer	
150 CONTRACTOR OFFERDS	ISC DATE SIGNE	D 16B, ONITED STATES				16C, DATE	SIGNE
15B. CONTRACTOR/OFFEROR	100, DATE SIGNE	T. 1. 1.1	St				
(Signature of person authorized to sign)		BY Signatur	CO C	ontracting Offi	cer)	-   4/28/	00
(District of beings accordance to sign)	I	1 // (	, _		•		

1. The purpose of this modification is to correct B&R code "820101000 (OP)" on modification A178. As a result of modification A182, B&R codes "820101000" and "820201000" are changed to read as follows:

Fund Type	B&R Code	Change	FY00	To Date
тс	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	(250,000.00)	0.00	0.00
TC	820201000 (OP TSKER4015000019)	500,000.00	500,000.00	500.000.00
TC	820201000 (OP TSKER40150TJAA)	9,432,000.00	9,432,000.00	9,432,000.00
TC	820201000 (OP TSKER40150I111J)	1,065,000.00	1,065,000.00	1,065,000.00

2. As a result of modification A182, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Fund Type	B&R Code	Change	FY00	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA <sup>*</sup>	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	200,000.00	5,880,000.00	10,663,575.00
WA	KB0102011	0.00	40,805,000.00	80,465,411.00
WA	KB0102011 (AIP A001)	0.00	1,300,000.00	2,800,000.00
WA	KB0102011 (GPP)	0.00	300,000.00	600,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	6,100,000.00	14,630,041.00
WA	KB0102012	0.00	18,010,000.00	36,656,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	1,248,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	535,000.00	1,070,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
Ϋ́A	KT0101012	0.00	0.00	496,000.00
Ϋ́A	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	0.00	20,000.00

Fund Type	B&R Code	Change	FY00	To Date
WA	KP1402010 (EQU)	0.00	0.00	240,000.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
YA	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA:	KC0701030	0.00	0.00	5,000.00
YA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
YA ·	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA .	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00	87,300.00
YA	WB000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR94-002)	0.00	30,000.00	253,469.00
YA	AT2540000	0.00	0.00	5,000.00
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	40403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
ΥA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	50,000.00	100,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	(250,000.00)	0.00	0.00
TO	820201000 (OP TSKER4015000019)	500,000.00	500,000.00	500,000.00
TC	820201000 (OP TSKER40150TJAAA)	9,432,000.00	9,432,000.00	9,432,000.00
TC	820201000 (OP TSKER40150I111J)	1,065,000.00	1,065,000.00	1,065,000.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	(5,000.00)	395,000.00	395,000.00
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	344,324.67	494,324.67
2Y	600305000 (OP AGR2000W003)	14,000.00	14,000.00	14,000.00
2Y	600305000 (OP AGR2000W002)	5,000.00	5,000.00	5,000.00
SA	YN1901000	0.00	(348.00)	98,652.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
****	TOTAL	\$10,961,000.00	\$84,764,976.67	966,255,761.59

<sup>3.</sup> All other terms and conditions of the contract remain unchanged and in full force and effect.

AMENDMENT OF SOLICITATION	N/MODIFICATION (	OF CONTRACT	1. C	ONTRACTID	CODE	PAGE OF PAGES
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURC	HAS	E REQ. NO.	5. PROJECT	NO. (If applicable)
A184	See Block 16C					
6. ISSUED BY CODE		7. ADMINISTERED BY	(If o	ther than Item	6) CODE	
U.S. Department of Energy	•					
TUNAF Site Office		Ì				
12000 Jefferson Avenue						
Newport News, VA 23606		ì		٠		
B. NAME AND ADDRESS OF CONTRACTOR (No	., street, county, State and i	ZIP Code)	(4)	9A. AMENDI	MENT OF SOL	ICITATION NO.
Southeastern Universiti	es					
Research Association,	Inc.			9B. DATED	SEE ITEM 11)	
1200 New York Avenue, N		•				
Washington, D.C. 20005			-	10A. MODIF	CATION OF	ONTRACT/ORDER
		•		NO.		
			x	1	-84ER4015	•
		····	^	1	(SEE ITEM 13 3, 1984	3)
CODE	FACILITY CODE	4454D454T0 05 00		<u> </u>	. 3, 1304	
11. IHIS II E	M ONLY APPLIES TO	AMENDMEN 15 OF SC	JLIC	HAHONS		
The above numbered solicitation is amended a tended.	s set forth in Item 14. The h	our and date specified for	recei	pt of Offers	is extende	d, Lis not ex-
(a) By completing Items 8 and 15, and returning — submitted; or (c) By separate letter or telegram with MENT TO BE RECEIVED AT THE PLACE DESIGN REJECTION OF YOUR OFFER. If by virtue letter, provided each telegram or letter makes reference.  12. ACCOUNTING AND APPROPRIATION DATA  Increase \$79,	nich includes a reference to INATED FOR THE RECEIF of this amendment you designce to the solicitation and to a (If required)	the solicitation and amend PT OF OFFERS PRIOR TO re to change an offer alread	ment O TH	numbers, FAI E HOUR AND braitted such	LURE OF YOU DATE SPECI change may be	UR ACKNOWLEDG FIED MAY RESULT made by telegram of
	PPLIES ONLY TO MOD	VIEICATIONS OF CON	ITR/	CTS/ORDE	BC	
IT MODULIE	THE CONTRACTIONS	VED NO AC DECCDID		NI ITEM 1A		
A. THIS CHANGE ORDER IS ISSUED PURS	SUANT TO: (Specify autho	rity) THE CHANGES SET	FOI	RTH IN ITEM	14 ARE MADE	EIN THE CON-
B. THE ABOVE NUMBERED CONTRACT/C appropriation date, etc.) SET FORTH IN I				TIVE CHANG .103(b).	ES (such as cha	nges in paying office
C. THIS SUPPLEMENTAL AGREEMENT IS	ENTERED INTO PURSUA	INT TO AUTHORITY OF	:	•		
D. OTHER (Specify type of modification and	(authority)			·		
Increase in obligation of	funds in accorda	nce with clause	ı.	79, "Obli	gation of	Funds"
F						
E. IMPORTANT: Contractor & is not,		his document and retur				
14. DESCRIPTION OF AMENDMENT/MODIFICA	ATION (Organized by UCF)	ection headings, including	solic	itation/contra	t subject matte	er where feasible.)
						•
		SEE FOLLOWING	PA	æs		
		*				
Except as provided herein, all terms and condition and effect.	s of the document reference					
15A. NAME AND TITLE OF SIGNER (Type or p.	rint)	16A. NAME AND TITE	E OI	CONTRACT	ING OFFICER	(Type or print)
	•			^.		C
	1.50 86-5 565-5	James W. Ski			icting Of	11.Cer 116C. DATE SIGNE
15B. CONTRACTOR/OFFEROR	IBC, DATE SIGNE	TANAL	1/	War.	24	11/02/2
(Signature of person authorized to sign.		BY (Signature	of C	contracting Of	ficer)	4/28/00

NSN 7540-01-152-8070 PREVIOUS EDITION UNUSABLE 30-105

STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243 1. The amount obligated under this contract is increased by \$79,000 and is changed from \$966,255,761.59 to \$966,334,761.59. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funs," is changed to read as follows:

Fund Type	B&R Code	Change	FY00	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	(200,000.00)	5,680,000.00	10,463,575.00
WA	KB0102011	(30,000.00)	40,775,000.00	80,435,411.00
WA	KB0102011 (AIP A001)	0.00	1,300,000.00	2,800,000.00
WA	KB0102011 (GPP)	0.00	300,000.00	600,000.00
WA	KB0102011 (EQU)	0.00	, 0.00	0.00
WA	KB0102012 (EQU)	0.00	6,100,000.00	14,630,041.00
WA	KB0102012	109,000.00	18,119,000.00	36,765,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	. 0.00	1,248,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	535,000.00	1,070,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	0.00	20,000.00
WA	KP1402010 (EQU)	0.00	0.00	240,000.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
YA	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00

Fund Type	B&R Code	Change	FY00	To Date
YA	KC0701030	0.00	0.00	5,000.00
YA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YA *	KT0201013	0.00	0.00	87,300.00
YA	WB0000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR94-002)	0.00	30,000.00	253,469.00
YA	AT2540000	0.00	0.00	5,000.00
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	40403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
YA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	50,000.00	100,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	500,000.00	500,000.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	9,432,000.00	9,432,000.00
TC	820201000 (OP TSKER40150I111J)	0.00	1,065,000.00	1,065,000.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	0.00	395,000.00	395,000.00
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	344,324.67	494,324.67
2Y	600305000 (OP AGR2000W003)	0.00	14,000.00	14,000.00
2Y	600305000 (OP AGR2000W002)	0.00	5,000.00	5,000.00
SA	YN1901000	0.00	(348.00)	98,652.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	200,000.00	200,000.00	200,000.00
	TOTAL	\$79,000.00	\$84,843,976.67	966,334,761.59

<sup>3.</sup> All other terms and conditions of the contract remain unchanged and in full force and effect.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE		PAGE OF PAGE	
,					[ <u> </u>	1 3
2. AMENDMENT/MODIFICATION NO. A185	See Block 16C	4. REQUISITION/PUR				TNO. (If applicable)
U.S. Department of Energy TJNAF Site Office 12000 Jefferson Avenue Newport News, VA 23606		7. ADMINISTERED BY	(If o	ther than Item (	S) CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No	o., street, county, State and	ZIP Code)	(y)	9A. AMENDM	ENT OF SO	LICITATION NO.
Southeastern Universitie Research Association, 1200 New York Avenue, NW Washington, D.C. 20005	Inc.	•		98. DATED (S	CATION OF	CONTRACT/ORDE
			l x	10B. DATED		
CODE	FACILITY CODE		┤ ^~	August 3		,
	M ONLY APPLIES TO	AMENDMENTS OF S	OLIC		<u> </u>	77.
C. THIS CHANGE ORDER IS ISSUED PURSTRACT ORDER NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/O appropriation date, etc.) SET FORTH IN ITEM 10A.  C. THIS SUPPLEMENTAL AGREEMENT IS  D. OTHER (Specify type of modification and X Increase in obligation of E. IMPORTANT: Contractor X is not, 14. DESCRIPTION OF AMENDMENT/MODIFICA	copies of the amenomich includes a reference to SNATED FOR THE RECE of this amendment you desence to the solicitation and A (If required)  OOO  PPLIES ONLY TO MO THE CONTRACT/OR SUANT TO: (Specify authority)  ENTERED INTO PURSUAL Authority)  Funds in according is required to sign	dment; (b) By acknowledge the solicitation and amen IPT OF OFFERS PRIOR sire to change an offer aire this amendment, and is respectively. The changes seemed and the authority of the authority o	oing reddment TO TH ady su ceived NTRABED ISTRAAR 43.	ceipt of this am numbers. FAII E HOUR AND bmitted, such o prior to the op ACTS/ORDERN ITEM 14. RTH IN ITEM 1  TIVE CHANGE 103(b).  .79, "Obl	endment on a LURE OF YOU DATE SPEC thange may be ening hour are RS,  A ARE MAD  S (such as che igation	each copy of the off DUR ACKNOWLED IFIED MAY RESULE made by telegram and date specified.  THE IN THE CON-  THE IN THE CON-  THE CON-  THE IN THE CON-  THE C
		SEE FOLLOWING	PAG	ES		
Except as provided herein, all terms and condition and effect.  15A. NAME AND TITLE OF SIGNER (Type or p.		ed in Item 9A or 10A, as h				
		James W.	Skin	ner. Cont	racting	Officer
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign.		ED 16B. UNITED STATE	5 OF	MERICA Sunds Contracting Offi		16C. DATE SIGN

NSN 7540-01-152-8070 PREVIOUS EDITION UNUSABLE 30-105

STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243 1. The amount obligated under this contract is increased by \$67,000 and is changed from \$966,334,761.59 to \$966,401,761.59. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funs," is changed to read as follows:

Fund Type	B&R Code	Change	FY00	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
• WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0403011	40,000.00	40,000.00	40,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	0.00	5,680,000.00	10,463,575.00
WA	KB0102011	0.00	40,775,000.00	80,435,411.00
WA	KB0102011 (AIP A001)	0.00	1,300,000.00	2,800,000.00
WA	KB0102011 (GPP)	0.00	300,000.00	600,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	6,100,000.00	14,630,041.00
WA	KB0102012	0.00	18,119,000.00	36,765,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	1,248,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	535,000.00	1,070,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA .	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	0.00	20,000.00
WA	KP1402010 (EQU)	0.00	0.00	240,000.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
YA	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00

Fund Type	B&R Code	Change	FY00	To Date
YA	KC0701030	0.00	0.00	5.000.00
YA	KT0101017	0.00	0.00	5,000.00
YA	KT0101018	0.00	0.00	412,000.00
YA	KT0101019	0.00	0.00	31,350.00
YA	KT0101025	0.00	0.00	5,000:00
YA	KU0100000	0.00	0.00	9,702.00
YA	KT0201013	0.00	0.00	484,000.00
YA	WB000000	0.00	0.00	87,300.00
. 1Y	39WB00000 (IHE50000A001)	0.00	0.00	116,000.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	29,800.00
1Y	650102000 (AGR94-002)	0.00	30,000.00	80,100.00
YA	AT2540000	0.00	-	253,469.00
3Т	400403309 (OP AGR000096)	0.00	0.00	5,000.00
3T	40403309 (OP AGR27199MPHS058)	0.00	0.00	11,744,355.00
ΥA	KJ0102000	0.00	0.00	12,135.92
WA	KJ0200000	0.00	0.00	420,346.00
WA	KJ0101030	0.00	0.00	50,909.00
TC	820101000 (OP)	0.00	50,000.00	100,000.00
TC	820201000 (OP)		0.00	599,853.00
TC	820201000 (OP TSKER4015000019)	0.00 0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)		500,000.00	500,000.00
TC	820201000 (OP TSKER401501111J)	0.00	9,432,000.00	9,432,000.00
TC	DP0404012 (OP)	0.00	1,065,000.00	1,065,000.00
TC	39DP04000	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
2Y		0.00	395,000.00	395,000.00
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	344,324.67	494,324.67
	600305000 (OP AGR2000W003)	0.00	14,000.00	14,000.00
2Y	600305000 (OP AGR2000W002)	0.00	5,000.00	5,000.00
2Y	600302000 (OP AGR2000W001)	27,000.00	27,000.00	27,000.00
SA	YN1901000	0.00	(348.00)	98,652.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	200,000.00	200,000.00
	TOTAL	\$67,000.00	\$84,910,976.67	966,401,761.59

<sup>3.</sup> All other terms and conditions of the contract remain unchanged and in full force and effect.

, AMENDMEN		MODIFICATION O	FICUNTRACT	1		1	OF PAGES
	T/MODIFICAITON NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHAS	SE REQ. NO.	5. PROJECT		1 plicble)
	A186	See Block 16C				. ,	,
ISSUED BY	CODE		7. ADMINISTERED BY (If	ther than Item 6)	CODE	1	
J.S. Departm	ent of Energy					·	
JNAF Site O	Office	•					
2000 Jeffers							
	s, VA 23606				1		
	ADDRESS OF CONTRACTOR (No., street, cou	intv. State and ZIP Code)	<u> </u>	(X) 9A. AMENDME	NT OF SOLICIA	ATION NO	
	Universities Research Association, Inc.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-	(///		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
	rk Avenue, NW		}		•		
	D.C. 20005			9B. DATED (SE	E ITEM 11)		· · · · · · · · · · · · · · · · · · ·
aoimigioii,	2.0. 2000						
				10A. MODIFICA	ATION OF CON	TRACT/OF	DER NO.
				DE-AC05-84			
				X 10B. DATED (S	EE ITEM 11)		
ODE	Ira	CILITY CODE			0.4		
JUE -		M ONLY APPLIES TO	AMENDMENTS OF S	August 3, 19	04		
. Jacob Work	13. THIS ITEM O	NLY APPLIES TO MO	DIFICATION OF COM	TRACTS/ORDE	RS.		
		NLY APPLIES TO MO THE CONTRACT/ORD SUANT TO: (Specify authority)	ER NO. AS DESCRIE	SED IN ITEM 14.		ONTRACT (	DRDER
	IT MODIFIES  A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/O appropriation date, etc.) SET FORTH IN	THE CONTRACT/ORD SUANT TO: (Specify authority) DRDER IS MODIFIED TO REFL NITEM 14, PURSUANT TO TH	ER NO. AS DESCRIE THE CHANGES SET FORTI ECT THE ADMINISTRATIVE RE AUTHORITY OF FAR 43.	BED IN ITEM 14. IN ITEM 14 ARE MA	ADE IN THE CO		DADER
CHECK ONE	IT MODIFIES  A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/C appropriation date, etc.) SET FORTH IN  C. THIS SUPPLEMENTAL AGREEMENT IS	THE CONTRACT/ORD SUANT TO: (Specify authority)  DRDER IS MODIFIED TO REFL  I ITEM 14, PURSUANT TO THE  ENTERED INTO PURSUANT T	ER NO. AS DESCRIE THE CHANGES SET FORTH ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF:	ED IN ITEM 14. IN ITEM 14 ARE MA CHANGES (such as a	DE IN THE CO	ing office,	
	IT MODIFIES  A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/( appropriation data, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS The Memorandum of Agreement entitle	THE CONTRACT/ORD  SUANT TO: (Specify authority)  DRDER IS MODIFIED TO REFL  N ITEM 14, PURSUANT TO THE  ENTERED INTO PURSUANT TO  Ed, "Developing Key Techr	ER NO. AS DESCRIE THE CHANGES SET FORTH ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF:	ED IN ITEM 14. IN ITEM 14 ARE MA CHANGES (such as a	DE IN THE CO	ing office,	
CHECK ONE	IT MODIFIES  A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/C appropriation date, etc.) SET FORTH IN  C. THIS SUPPLEMENTAL AGREEMENT IS	THE CONTRACT/ORD  SUANT TO: (Specify authority)  DRDER IS MODIFIED TO REFL  N ITEM 14, PURSUANT TO THE  ENTERED INTO PURSUANT TO  Ed, "Developing Key Techr	ER NO. AS DESCRIE THE CHANGES SET FORTH ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF:	ED IN ITEM 14. IN ITEM 14 ARE MA CHANGES (such as of 103(b).  grades To Extend T	DE IN THE CO	ing office, ree Electr	on Laser's
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/( appropriation date, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS The Memorandum of Agreement entitle D. OTHER (Specify type of modification ar	THE CONTRACT/ORD  SUANT TO: (Specify authority)  DRDER IS MODIFIED TO REFL  NITTEM 14, PURSUANT TO THE  ENTERED INTO PURSUANT TO  ad, "Developing Key Techroid authority)	ER NO. AS DESCRIE THE CHANGES SET FORTH ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF: hologies & Designing Upg	ED IN ITEM 14. IN ITEM 14 ARE MA CHANGES (such as of 103 (b).  Grades To Extend T  Output Power B	changes in pay the Infrared F	ing office, ree Electr	on Laser's ay 5, 2000
CHECK ONE	IT MODIFIES  A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/( appropriation data, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS The Memorandum of Agreement entitle	THE CONTRACT/ORD  SUANT TO: (Specify authority)  DRDER IS MODIFIED TO REFL  N ITEM 14, PURSUANT TO THE  ENTERED INTO PURSUANT TO  Ed, "Developing Key Techr	ER NO. AS DESCRIE THE CHANGES SET FORTH ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF: hologies & Designing Upg	ED IN ITEM 14. IN ITEM 14 ARE MA CHANGES (such as of 103 (b).  Grades To Extend T  Output Power B	changes in pay the Infrared F	ing office, ree Electr	on Laser's ay 5, 2000
X . IMPORT	A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/( appropriation date, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS The Memorandum of Agreement entitle D. OTHER (Specify type of modification ar	THE CONTRACT/ORD SUANT TO: (Specify authority)  DRDER IS MODIFIED TO REFL I TTEM 14, PURSUANT TO THE ENTERED INTO PURSUANT TO ad, "Developing Key Technol authority)  is required to sign thinized by UCF section headings	ER NO. AS DESCRIE THE CHANGES SET FORTH ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF: hologies & Designing Upg is document and retu a, including solicitation/conti	ED IN ITEM 14. IN ITEM 14 ARE MA CHANGES (such as of 103(b).  Grades To Extend T  Output Power B	changes in pay the Infrared F seyond 10Kw	ing office, ree Electr	on Laser's ay 5, 2000
X . IMPORT	A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/C appropriation date, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS The Memorandum of Agreement entitle D. OTHER (Specify type of modification as	THE CONTRACT/ORD SUANT TO: (Specify authority)  DRDER IS MODIFIED TO REFL I ITEM 14, PURSUANT TO THE ENTERED INTO PURSUANT TO ad, "Developing Key Techr ad authority)  is required to sign thi	ER NO. AS DESCRIE THE CHANGES SET FORTH ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF: hologies & Designing Upg is document and retu a, including solicitation/conti	ED IN ITEM 14. IN ITEM 14 ARE MA CHANGES (such as of 103(b).  Grades To Extend T  Output Power B	changes in pay the Infrared F seyond 10Kw	ing office, ree Electr	on Laser's ay 5, 2000
X . IMPORT	A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/C appropriation date, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS The Memorandum of Agreement entitle D. OTHER (Specify type of modification as	THE CONTRACT/ORD SUANT TO: (Specify authority)  DRDER IS MODIFIED TO REFL I TTEM 14, PURSUANT TO THE ENTERED INTO PURSUANT TO ad, "Developing Key Technol authority)  is required to sign the inized by UCF section headings	ER NO. AS DESCRIE THE CHANGES SET FORTH ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF: hologies & Designing Upg is document and retu a, including solicitation/conti	ED IN ITEM 14. IN ITEM 14 ARE MA CHANGES (such as of 103(b).  Grades To Extend T  Output Power B	changes in pay the Infrared F seyond 10Kw	ing office, ree Electr	on Laser's ay 5, 2000
X . IMPORT	A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/C appropriation date, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS The Memorandum of Agreement entitle D. OTHER (Specify type of modification as	THE CONTRACT/ORD SUANT TO: (Specify authority)  DRDER IS MODIFIED TO REFL I TTEM 14, PURSUANT TO THE ENTERED INTO PURSUANT TO ad, "Developing Key Technol authority)  is required to sign the inized by UCF section headings	ER NO. AS DESCRIE THE CHANGES SET FORTH ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF: hologies & Designing Upg is document and retu a, including solicitation/conti	ED IN ITEM 14. IN ITEM 14 ARE MA CHANGES (such as of 103(b).  Grades To Extend T  Output Power B	changes in pay the Infrared F seyond 10Kw	ing office, ree Electr	on Laser's ay 5, 2000
X . IMPORT	A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/C appropriation date, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS The Memorandum of Agreement entitle D. OTHER (Specify type of modification as	THE CONTRACT/ORD SUANT TO: (Specify authority)  DRDER IS MODIFIED TO REFL I TTEM 14, PURSUANT TO THE ENTERED INTO PURSUANT TO ad, "Developing Key Technol authority)  is required to sign the inized by UCF section headings	ER NO. AS DESCRIE THE CHANGES SET FORTH ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF: hologies & Designing Upg is document and retu a, including solicitation/conti	ED IN ITEM 14. IN ITEM 14 ARE MA CHANGES (such as of 103(b).  Grades To Extend T  Output Power B	changes in pay the Infrared F seyond 10Kw	ing office, ree Electr	on Laser's ay 5, 2000
X . IMPORT	A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/C appropriation date, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS The Memorandum of Agreement entitle D. OTHER (Specify type of modification as	THE CONTRACT/ORD SUANT TO: (Specify authority)  DRDER IS MODIFIED TO REFL I TTEM 14, PURSUANT TO THE ENTERED INTO PURSUANT TO ad, "Developing Key Technol authority)  is required to sign the inized by UCF section headings	ER NO. AS DESCRIE THE CHANGES SET FORTH ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF: hologies & Designing Upg is document and retu a, including solicitation/conti	ED IN ITEM 14. IN ITEM 14 ARE MA CHANGES (such as of 103(b).  Grades To Extend T  Output Power B	changes in pay the Infrared F seyond 10Kw	ing office, ree Electr	on Laser's ay 5, 2000
X . IMPORT	A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/C appropriation date, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS The Memorandum of Agreement entitle D. OTHER (Specify type of modification as	THE CONTRACT/ORD SUANT TO: (Specify authority)  DRDER IS MODIFIED TO REFL I TTEM 14, PURSUANT TO THE ENTERED INTO PURSUANT TO ad, "Developing Key Technol authority)  is required to sign the inized by UCF section headings	ER NO. AS DESCRIE THE CHANGES SET FORTH ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF: hologies & Designing Upg is document and retu a, including solicitation/conti	ED IN ITEM 14. IN ITEM 14 ARE MA CHANGES (such as of 103(b).  Grades To Extend T  Output Power B	changes in pay the Infrared F seyond 10Kw	ing office, ree Electr	on Laser's ay 5, 2000
X  IMPORT	A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/C appropriation date, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS The Memorandum of Agreement entitle D. OTHER (Specify type of modification as	THE CONTRACT/ORD SUANT TO: (Specify authority)  DRDER IS MODIFIED TO REFL I TTEM 14, PURSUANT TO THE ENTERED INTO PURSUANT TO ad, "Developing Key Technol authority)  is required to sign the inized by UCF section headings	ER NO. AS DESCRIE THE CHANGES SET FORTH ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF: hologies & Designing Upg is document and retu a, including solicitation/conti	ED IN ITEM 14. IN ITEM 14 ARE MA CHANGES (such as of 103(b).  Grades To Extend T  Output Power B	changes in pay the Infrared F seyond 10Kw	ing office, ree Electr	on Laser's ay 5, 2000
X IMPORT	A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/C appropriation date, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS The Memorandum of Agreement entitle D. OTHER (Specify type of modification as	THE CONTRACT/ORD SUANT TO: (Specify authority)  DRDER IS MODIFIED TO REFL IN ITEM 14, PURSUANT TO THE ENTERED INTO PURSUANT TO ad, "Developing Key Technol authority)  is required to sign thinized by UCF section heading.  SEE FOLLOWI	ER NO. AS DESCRIE THE CHANGES SET FORTH ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF: hologies & Designing Upg is document and retu is, including solicitation/conti	ED IN ITEM 14 IN ITEM 14 ARE MA CHANGES (such as of 103(b).  Grades To Extend T  Output Power B  TO	changes in pay the infrared F eyond 10Kw copies to the	ing office, free Electr dated M	on Laser's ay 5, 2000 g office.
X  IMPORT  A. DESCRIPT	A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/O appropriation date, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS The Memorandum of Agreement entitle D. OTHER (Specify type of modification as TANT: Contractor X is not;	THE CONTRACT/ORD SUANT TO: (Specify authority)  DRDER IS MODIFIED TO REFL IN ITEM 14, PURSUANT TO THE ENTERED INTO PURSUANT TO ad, "Developing Key Technol authority)  is required to sign thinized by UCF section heading.  SEE FOLLOWI	ER NO. AS DESCRIE THE CHANGES SET FORTH ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF: hologies & Designing Upg is document and retu is, including solicitation/conti	BED IN ITEM 14.  IN ITEM 14 ARE MA CHANGES (such as of 103(b).  Trades To Extend T  Output Power B  Tract subject matter with the subject matter with	changes in pay the infrared F reyond 10Kw copies to the	ing office, free Electr dated M ne issuin	on Laser's ay 5, 2000 g office.
Except as provided. NAME A	IT MODIFIES  A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/O appropriation date, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS The Memorandum of Agreement entitle D. OTHER (Specify type of modification as  FANT: Contractor X is not;  TON OF AMENDMENT/MODIFICATION (Organ  Vided herein, all terms and conditions of the d  AND TITLE OF SIGNER (Type or print)	THE CONTRACT/ORD SUANT TO: (Specify authority)  DRDER IS MODIFIED TO REFL IN ITEM 14, PURSUANT TO THE ENTERED INTO PURSUANT TO ad, "Developing Key Technol authority)  is required to sign thinized by UCF section heading.  SEE FOLLOWI	ER NO. AS DESCRIE THE CHANGES SET FORTH ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF: hologies & Designing Upg is document and retu s, including solicitation/conting NG PAGES  A or 10A, as heretofore cha	SED IN ITEM 14. IN ITEM 14 ARE MA CHANGES (such as of 103(b).  Grades To Extend T  Output Power B  act subject matter where the subject matter whe	changes in pay the infrared F reyond 10Kw copies to the	ing office, free Electr dated M ne issuin	on Laser's ay 5, 2000 g office.
X E. IMPORT 4. DESCRIPT  Except as provided in the provided in	IT MODIFIES  A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/O appropriation date, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS The Memorandum of Agreement entitle D. OTHER (Specify type of modification and TANT: Contractor X is not, TON OF AMENDMENT/MODIFICATION (Organization) TON OF AMENDMENT/MODIFICATION (Organization) Vided herein, all terms and conditions of the deand TITLE OF SIGNER (Type or print)  T. Jerry P. Draayer	THE CONTRACT/ORD SUANT TO: (Specify authority)  DRDER IS MODIFIED TO REFL INTER 14, PURSUANT TO THE ENTERED INTO PURSUANT TO ad, "Developing Key Technol authority)  Is required to sign this Inized by UCF section headings SEE FOLLOWI	ER NO. AS DESCRIE THE CHANGES SET FORTH ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF: hologies & Designing Upg s document and retu s, including solicitation/conta NG PAGES  A or 10A, as heretofore cha	SED IN ITEM 14 IN ITEM 14 ARE MA CHANGES (such as of 103(b).  Grades To Extend T  Output Power B  TO ———————————————————————————————————	changes in pay the infrared F reyond 10Kw copies to the	ing office, free Electr dated M ne issuin force and print)	on Laser's ay 5, 2000 g office.
X  IMPORT  LEXCEPT as provided. NAME A	IT MODIFIES  A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/O appropriation date, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS The Memorandum of Agreement entitle D. OTHER (Specify type of modification as  FANT: Contractor X is not;  TON OF AMENDMENT/MODIFICATION (Organ  Vided herein, all terms and conditions of the d  AND TITLE OF SIGNER (Type or print)	THE CONTRACT/ORD SUANT TO: (Specify authority)  DRDER IS MODIFIED TO REFL IN ITEM 14, PURSUANT TO THE ENTERED INTO PURSUANT TO ad, "Developing Key Technol authority)  is required to sign thinized by UCF section heading.  SEE FOLLOWI	ER NO. AS DESCRIE THE CHANGES SET FORTH ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF: hologies & Designing Upg is document and retu s, including solicitation/conting NG PAGES  A or 10A, as heretofore cha	SED IN ITEM 14 IN ITEM 14 ARE MA CHANGES (such as of 103(b).  Grades To Extend T  Output Power B  TO ———————————————————————————————————	changes in pay the infrared F reyond 10Kw copies to the	ing office, free Electr dated M ne issuin force and print)	on Laser's ay 5, 2000 g office.

NSN 7540-01-152-8070 Previous edition unusable STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243

- 1. The purpose of this modification is to:
  - a. Incorporate the attached Statement of Work entitled "Statement of Work for Developing Key Technologies and Designing Upgrades to Extend the Infrared Free Electron Laser's Output Power Beyond 10KW" to Clause C.1 -STATEMENT OF WORK.
  - b. Authorize \$9,029,126.21 to be charged under B&R Code 40 04 03 309 (AGR-00-F-0439) for reimbursable work in performance of the Statement of Work entitled "Statement of Work for Developing Key Technologies and Designing Upgrades to Extend the Infrared Free Electron Laser's Output Power Beyond 10KW."
  - c. The amount obligated under this contract is increased by \$9,078,801,54 and is changed from \$966,401,761.59 to \$975,480,563.13. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Fund Type	B&R Code	Change	FY00	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	50,000.00	50,000.00	50,000.00
WA	KA0403011	0.00	40,000.00	40,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	0.00	5,680,000.00	10,463,575.00
WA	KB0102011	0.00	40,775,000.00	80,435,411.00
WA	KB0102011 (AIP A001)	0.00	1,300,000.00	2,800,000.00
WA	KB0102011 (GPP)	0.00	300,000.00	600,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	6,100,000.00	14,630,041.00
WA	KB0102012	0.00	18,119,000.00	36,765,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	1,248,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	535,000.00	1,070,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00

Fund Type	B&R Code	Change	FY00	To Date
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	0.00	20,000.00
WA	KP1402010 (EQU)	0.00	0.00	240,000.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF ·	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
YA	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00
YA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YΑ	KT0201013	0.00	0.00	87,300.00
Ϋ́Α	WB0000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR94-002)	0.00	30,000.00	253,469.00
YA	AT2540000	0.00	0.00	5,000.00
<b>3</b> T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	40403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
3T	40403309 (OP AGR-00-F-0439)	9,029,126.21	9,029,126.21	9,029,126.21
YA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	50,000.00	100,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	(457,267.00)	42,733.00	42,733.00
TC	820201000 (OP TSKER40150TJAAÁ)	(9,432,000.00)	0.00	0.00
TC.	820201000 (OP TSKER40150I111J)	(1,065,000.00)	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	457,267.00	457,267.00	457,267.00
TC	820201000 (OP TSKER401501111J CR40)	1,065,000.00	1,065,000.00	1,065,000.00
TC	820201000 (OP TSKER40150TJAAA CR40)	9,432,000.00	9,432,000.00	9,432,000.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	0.00	395,000.00	395,000.00
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	(324.67)	344,000.00	494,000.00
2Y	600305000 (OP AGR2000W003)	0.00	14,000.00	14,000.00
2Y	600305000 (OP AGR2000W002)	0.00	5,000.00	5,000.00
<b>2</b> Y	600302000 (OP AGR2000W001)	0.00	27,000.00	27,000.00
SA	YN1901000	0.00	(348.00)	98,652.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	200,000.00	200,000.00
	TOTAL	\$9,078,801.54	\$93,989,778.21	975,480,563.13

<sup>2.</sup> All other terms and conditions of the contract remain unchanged and in full force and effect.

#### ENCLOSURE (1) TO THE MEMORANDUM OF AGREEMENT

# Statement of Work Phase 1 Developing Key Technologies to Extend FEL Output Power to Beyond 10 kW

The DOB-ORO, having operated a Free Electron Laser at the 1.7 kW level, is now poised to determine what technical hurdles exist to scaling this system by in excess of an order of magnitude in power. Project funding is provided by the US Congress in FY00 and administered by ONR through the DoE contractor (SURA). Accordingly, the DOE-ORO shall direct SURA to develop and test key components applicable to the scaling of a high average power Free Electron Laser oscillator system to the 10 to 20 kW level. As a minimum these activities are to include:

- 1. Perform sub-system level analyses and designs of the Free Electron Laser as required to establish the technical design specifications of those sub-systems.
- 2. Specify, design, construct, and test a Rf power module suitable for operation of a FEL system at the 10 to 20 kW level while utilizing energy recovery. Specifically, this will produce RF power outputs in excess of 50 kW per unit in the injector region and 6 kW per unit in the main accelerator region.
- 3. Specify, design, construct, and test methods for improving the performance of High Voltage DC injector guns to levels of performance suitable for 10 to 20 kW FBL output, that is, capable of 10 mA output at >320 kV acceptable for insertion to a 1497 MHz linac. Incorporate technologies/approaches for improving quantum efficiencies and operating life span beyond present levels of performance.
- 4. Specify, design, construct and test a high power wiggler system with K > 1 suitable for operation with a 10 to 20 kW oscillator in the 2 to 10 micron wavelength region.
- 5. Specify, design, and prototype an optical system suitable for operation with a 10 to 20 kW oscillator in the 2 to 10 micron region, that is, capable of withstanding in excess of 100 kW of circulating average power.
- 6. Develop detailed specifications and component engineering designs of a magnetic transport system with an energy spread acceptance in excess of 6% full range at 200 MeV and with other transport characteristics suitable to support the operation of a 10 to 20 kW oscillator. Verify manufacturability through prototyping and tests as appropriate to verify proper performance.
- 7. Specify and develop other components found to be limiting scaling the laser to the 10 to 20 kW level including improvements to the srf system for high current capacity in excess of 10 mA and real estate gradient ratio in excess of 40% along with supporting cryogenics, and beam instrumentation systems. Prototype and test such components as appropriate to verify their performance.

- 8. Support system analyses to be performed by NRL, NPGS, and others as directed by ONR through the Contracting Officer's Representative (COR) to optimize the scaled system performance, operability, and compatibility with defense applications as identified by ONR. Provide analyses of superconducting FEL power and cost scaling physical laws to help guide future activities and make them compatible with the long-term device applications.
- 9. Support laser-material interaction and damage studies and associated experiment planning for potential users of the FEL Facility, including the ONR and ONR contractors. Coordinate user laboratory capabilities and planning with government, national laboratory, university, and industrial users of the FEL User Facility.
- 10. a. Manage the project by holding weekly technical meetings with Work Package Managers.
  - b. Provide monthly technical, cost and schedule status reports documenting earned value at the third level of the Work Breakdown Structure (WBS).
  - c. Develop remedial plans for any subsystem projected to finish more than 10% over budgeted cost or projected to delay laser system operation by more than two months.
  - d. Hold critical design reviews of each major subsystem (second level WBS hardware element) before awarding procurement subcontracts in excess of \$100K. Notify COR and the ONR technical point of contact of any such exceptions.
  - c. Present project reviews covering technical progress, cost, and schedule at the project commencement and at critical design reviews every six months thereafter.
  - f. Support ONR program reviews with written and oral presentations as directed by ONR through the COR.
  - g. Provide a final report summarizing the results of the program within six months of completion of installation.
  - h. Copies of all reports should be provided to the ONR technical point of contact.

. AMENDMENT/MODIFICAITON NO.		OF CONTRACT		ODE	PAGE C	of Pages 1
	3. EFFECTIVE DATE	4. REQUISITION/PURCHA	SE REQ. NO.	5. PROJECT	NO. (If appl	icble)
A187	See Block 16C	·				
. ISSUED BY CO	DDE	7. ADMINISTERED BY (If	other than Item 6)	CODE	I	<del></del>
J.S. Department of Energy	•					
JNAF Site Office		÷				٠
2000 Jefferson Avenue						
ewport News, VA 23606  NAME AND ADDRESS OF CONTRACTOR (No., str.	eet county State and 7IP Code)		(X) [9A. AMENDME	NT OF SOUCIA	TIONING	
outheastern Universities Research Association	•	<u> </u>	(V) love kingraphic	ari or doctor	111014 140.	
			l			
00 New York Avenue, NW			9B. DATED (SI	E ITEM 11)	· · · · · · · · · · · · · · · · · · ·	
ashington, D.C. 20005		İ	1			
		ľ	10A. MODIFIC	ATION OF CON	TRACT/ORE	ER NO.
		t <sub>n</sub>	DE-AC05-84	ER40150		
			X 10B. DATED (S	SEE ITEM 11)		
		<u> </u>	1			
DE	FACILITY CODE		August 3, 19			
11. THIS	S ITEM ONLY APPLIES TO	AMENDMENTS OF S	SOLICITATIONS			
ACCOUNTING AND APPROPIRATION DATA (If rease \$359,607		ODIFICATION OF COL	NTRACTS/ORDI	RS		
IT MODI	TEM ONLY APPLIES TO MO FIES THE CONTRACT/ORD	DER NO. AS DESCRI	BED IN ITEM 14	•		
HECK ONE A. THIS CHANGE ORDER IS ISSUE NO. IN ITEM 10A.	FIES THE CONTRACT/ORI	DER NO. AS DESCRII y) THE CHANGES SET FORT	BED IN ITEM 14 H IN ITEM 14 ARE M	ADE IN THE CO		PDER
HECK ONE  A. THIS CHANGE ORDER IS ISSUE NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONT appropriation date, etc.) SET FO	FIES THE CONTRACT/ORIGID PURSUANT TO: (Specify authority	DER NO. AS DESCRIF y) THE CHANGES SET FORT LECT THE ADMINISTRATIVI THE AUTHORITY OF FAR 43	BED IN ITEM 14 H IN ITEM 14 ARE M ECHANGES (such as	ADE IN THE CO		RDER
B. THE ABOVE NUMBERED CONTAGPROPRIATION APPROPRIATION AGREEM	FIES THE CONTRACT/ORIED PURSUANT TO: (Specify authority processing autho	DER NO. AS DESCRII  THE CHANGES SET FORT  LECT THE ADMINISTRATIVE THE AUTHORITY OF FAR 43.  TO AUTHORITY OF:	BED IN ITEM 14 H IN ITEM 14 ARE M ECHANGES (such as	ADE IN THE CO		RDER
HECK ONE  A. THIS CHANGE ORDER IS ISSUE NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONT appropriation date, etc.) SET FO	FIES THE CONTRACT/ORIGINAL PURSUANT TO: (Specify authority pursuant to the second pursuant the second pur	DER NO. AS DESCRII  THE CHANGES SET FORT  LECT THE ADMINISTRATIVE THE AUTHORITY OF FAR 43.  TO AUTHORITY OF:	BED IN ITEM 14 H IN ITEM 14 ARE M ECHANGES (such as	ADE IN THE CO		RDER
B. THE ABOVE NUMBERED CONTAPPROPRIATION OF THIS SUPPLEMENTAL AGREEM  X Increase in obligation of funds in D. OTHER (Specify type of modification).  IMPORTANT: Contractor is not	FIES THE CONTRACT/ORIGID PURSUANT TO: (Specify authority)  FRACT/ORDER IS MODIFIED TO REFORTH IN ITEM 14, PURSUANT TO THE MENT IS ENTERED INTO PURSUANT IN accordance with Clause 1.79 "(Cation and authority)  It, X is required to sign the contract of the contract of the cation and authority)	DER NO. AS DESCRIE  THE CHANGES SET FORT  LECT THE ADMINISTRATIVE THE AUTHORITY OF FAR 43.  TO AUTHORITY OF:  Obligation of Funds."	BED IN ITEM 14 H IN ITEM 14 ARE M E CHANGES (such as 103(b).	copies to th	ing office,	
A. THIS CHANGE ORDER IS ISSUE NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONT appropriation date, etc.) SET FOR C. THIS SUPPLEMENTAL AGREEM Increase in obligation of funds in D. OTHER (Specify type of modific	FIES THE CONTRACT/ORG D PURSUANT TO: (Specify authority  FRACT/ORDER IS MODIFIED TO REFORTH IN ITEM 14, PURSUANT TO THE ACCORDANCE WITH Clause 1.79 "(Control and authority)  The Control and authority)  The Control and authority is required to sign the	DER NO. AS DESCRIE  THE CHANGES SET FORT  LECT THE ADMINISTRATIVE THE AUTHORITY OF FAR 43.  TO AUTHORITY OF:  Obligation of Funds."  his document and returned in the comment of the comme	BED IN ITEM 14 H IN ITEM 14 ARE M E CHANGES (such as 103(b).	copies to th	ing office,	
B. THE ABOVE NUMBERED CONTAPPROPRIATION OF THIS SUPPLEMENTAL AGREEM  X Increase in obligation of funds in D. OTHER (Specify type of modification).  IMPORTANT: Contractor is not	FIES THE CONTRACT/ORIGID PURSUANT TO: (Specify authority)  FRACT/ORDER IS MODIFIED TO REFORTH IN ITEM 14, PURSUANT TO THE MENT IS ENTERED INTO PURSUANT IN accordance with Clause 1.79 "(Cation and authority)  It, X is required to sign the contract of the contract of the cation and authority)	DER NO. AS DESCRIE  THE CHANGES SET FORT  LECT THE ADMINISTRATIVE THE AUTHORITY OF FAR 43.  TO AUTHORITY OF:  Obligation of Funds."  his document and returned in the comment of the comme	BED IN ITEM 14 H IN ITEM 14 ARE M E CHANGES (such as 103(b).	copies to th	ing office,	
B. THE ABOVE NUMBERED CONTAPPROPRIATION OF THIS SUPPLEMENTAL AGREEM  X Increase in obligation of funds in D. OTHER (Specify type of modification)  IMPORTANT: Contractor is not	FIES THE CONTRACT/ORG D PURSUANT TO: (Specify authority  FRACT/ORDER IS MODIFIED TO REFORTH IN ITEM 14, PURSUANT TO THE ACCORDANCE WITH Clause 1.79 "(Control and authority)  The Control and authority)  The Control and authority is required to sign the	DER NO. AS DESCRIE  THE CHANGES SET FORT  LECT THE ADMINISTRATIVE THE AUTHORITY OF FAR 43.  TO AUTHORITY OF:  Obligation of Funds."  his document and returned in the comment of the comme	BED IN ITEM 14 H IN ITEM 14 ARE M E CHANGES (such as 103(b).	copies to th	ing office,	
B. THE ABOVE NUMBERED CONTAPPROPRIATION OF THIS SUPPLEMENTAL AGREEM  X Increase in obligation of funds in D. OTHER (Specify type of modification).  IMPORTANT: Contractor is not	FIES THE CONTRACT/ORG D PURSUANT TO: (Specify authority  FRACT/ORDER IS MODIFIED TO REFORTH IN ITEM 14, PURSUANT TO THE ACCORDANCE WITH Clause 1.79 "(Control and authority)  The Control and authority)  The Control and authority is required to sign the	DER NO. AS DESCRIE  THE CHANGES SET FORT  LECT THE ADMINISTRATIVE THE AUTHORITY OF FAR 43.  TO AUTHORITY OF:  Obligation of Funds."  his document and returned in the comment of the comme	BED IN ITEM 14 H IN ITEM 14 ARE M E CHANGES (such as 103(b).	copies to th	ing office,	
B. THE ABOVE NUMBERED CONTAPPROPRIATION OF THIS SUPPLEMENTAL AGREEM  X Increase in obligation of funds in D. OTHER (Specify type of modification).  IMPORTANT: Contractor is not	FIES THE CONTRACT/ORG D PURSUANT TO: (Specify authority  FRACT/ORDER IS MODIFIED TO REFORTH IN ITEM 14, PURSUANT TO THE ACCORDANCE WITH Clause 1.79 "(Control and authority)  The Control and authority)  The Control and authority is required to sign the	DER NO. AS DESCRIE  THE CHANGES SET FORT  LECT THE ADMINISTRATIVE THE AUTHORITY OF FAR 43.  TO AUTHORITY OF:  Obligation of Funds."  his document and returned in the comment of the comme	BED IN ITEM 14 H IN ITEM 14 ARE M E CHANGES (such as 103(b).	copies to th	ing office,	
B. THE ABOVE NUMBERED CONTAPPROPRIATION OF THIS SUPPLEMENTAL AGREEM  X Increase in obligation of funds in D. OTHER (Specify type of modification)  IMPORTANT: Contractor is not	FIES THE CONTRACT/ORG D PURSUANT TO: (Specify authority  FRACT/ORDER IS MODIFIED TO REFORTH IN ITEM 14, PURSUANT TO THE ACCORDANCE WITH Clause 1.79 "(Control and authority)  The Control and authority)  The Control and authority is required to sign the	DER NO. AS DESCRIE  THE CHANGES SET FORT  LECT THE ADMINISTRATIVE THE AUTHORITY OF FAR 43.  TO AUTHORITY OF:  Obligation of Funds."  his document and returned in the comment of the comme	BED IN ITEM 14 H IN ITEM 14 ARE M E CHANGES (such as 103(b).	copies to th	ing office,	
B. THE ABOVE NUMBERED CONTAPPROPRIATION OF THIS SUPPLEMENTAL AGREEM  X Increase in obligation of funds in D. OTHER (Specify type of modification).  IMPORTANT: Contractor is not	FIES THE CONTRACT/ORG D PURSUANT TO: (Specify authority  FRACT/ORDER IS MODIFIED TO REFORTH IN ITEM 14, PURSUANT TO THE ACCORDANCE WITH Clause 1.79 "(Control and authority)  The Control and authority)  The Control and authority is required to sign the	DER NO. AS DESCRIE  THE CHANGES SET FORT  LECT THE ADMINISTRATIVE THE AUTHORITY OF FAR 43.  TO AUTHORITY OF:  Obligation of Funds."  his document and returned in the comment of the comme	BED IN ITEM 14 H IN ITEM 14 ARE M E CHANGES (such as 103(b).	copies to the	ing office,	
A. THIS CHANGE ORDER IS ISSUE NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONT appropriation date, etc.) SET FOR C. THIS SUPPLEMENTAL AGREEM Increase in obligation of funds in D. OTHER (Specify type of modification).  IMPORTANT: Contractor is not	FIES THE CONTRACT/ORG D PURSUANT TO: (Specify authority  FRACT/ORDER IS MODIFIED TO REFORTH IN ITEM 14, PURSUANT TO THE ACCORDANCE WITH Clause 1.79 "(Control and authority)  The Control and authority)  The Control and authority is required to sign the	DER NO. AS DESCRIE  THE CHANGES SET FORT  LECT THE ADMINISTRATIVE THE AUTHORITY OF FAR 43.  TO AUTHORITY OF:  Obligation of Funds."  his document and returned in the comment of the comme	BED IN ITEM 14 H IN ITEM 14 ARE M E CHANGES (such as 103(b).	copies to the	ing office,	
B. THE ABOVE NUMBERED CONTAPPROPRIATION  C. THIS SUPPLEMENTAL AGREEM  X Increase in obligation of funds in D. OTHER (Specify type of modification)  IMPORTANT: Contractor is not the description of Amendment/Modification of Amendment/Modification of Amendment/Modification is not the description of Amendment/Modification is not the description of Amendment/Modification in the description of Amendment/Modification is not the description of Amendment/Modification in the description of Amendment/Modification is not the description of Amendment/Modification in the description of Amendment/Modification is not the description of Amendment/Modification in the description of Amendment/Modification in the description of Amendment/Modification in the description of Amendment in the description in the description in the description of Amendment in the description in the	FIES THE CONTRACT/ORIED PURSUANT TO: (Specify authority)  FRACT/ORDER IS MODIFIED TO REFORTH IN ITEM 14, PURSUANT TO THE MENT IS ENTERED INTO PURSUANT IN accordance with Clause 1.79 "(coation and authority)  The property of the coation heading of the coation and successful to the coation heading of the coation heading o	DER NO. AS DESCRII  y) THE CHANGES SET FORT  LECT THE ADMINISTRATIV THE AUTHORITY OF FAR 43.  TO AUTHORITY OF:  Obligation of Funds."  his document and return of the second of the seco	BED IN ITEM 14 H IN ITEM 14 ARE M E CHANGES (such as 103(b).	changes in payi	ing office,	office.
B. THE ABOVE NUMBERED CONTAPPROPRIATION OF THIS SUPPLEMENTAL AGREEM  X Increase in obligation of funds in D. OTHER (Specify type of modification).  IMPORTANT: Contractor is not	FIES THE CONTRACT/ORIED PURSUANT TO: (Specify authority)  FRACT/ORDER IS MODIFIED TO REPORTH IN ITEM 14, PURSUANT TO THE ACCORDING WITH Clause 1.79 "(Control of the Control of the Contro	DER NO. AS DESCRII  y) THE CHANGES SET FORT  LECT THE ADMINISTRATIV THE AUTHORITY OF FAR 43.  TO AUTHORITY OF:  Obligation of Funds."  his document and return of the second of the seco	BED IN ITEM 14 H IN ITEM 14 ARE M E CHANGES (such as 103(b).  Jrn2 ract subject matter w	changes in paying the copies to the copies t	ing office,  ne issuing	office.
HECK ONE A. THIS CHANGE ORDER IS ISSUE NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTAPPROPRIATION of AMENDMENT/MODIFICATION  INCREASE IN OBLIGATION OF AMENDMENT/MODIFICATION  IMPORTANT: Contractor is not is not a condition.	FIES THE CONTRACT/ORIED PURSUANT TO: (Specify authority)  FRACT/ORDER IS MODIFIED TO REPORTH IN ITEM 14, PURSUANT TO THE ACCORDING WITH Clause 1.79 "(Control of the Control of the Contro	DER NO. AS DESCRII  y) THE CHANGES SET FORT  LECT THE ADMINISTRATIVI THE AUTHORITY OF FAR 43.  TO AUTHORITY OF:  Obligation of Funds."  his document and retu gs, including solicitation/cont VING PAGES	BED IN ITEM 14 H IN ITEM 14 ARE M E CHANGES (such as 103(b).  Jrn2 ract subject matter w	changes in paying the copies to the copies t	ing office,  ne issuing	office.
A. THIS CHANGE ORDER IS ISSUE NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTAPPROPRIATION date, etc.) SET FOR Increase in obligation of funds in D. OTHER (Specify type of modifical D. OTHER (Specify type of modifical D. DESCRIPTION OF AMENDMENT/MODIFICATION OF AMENDMENT/MODIFICAT	FIES THE CONTRACT/ORIED PURSUANT TO: (Specify authority)  FRACT/ORDER IS MODIFIED TO REFORTH IN ITEM 14, PURSUANT TO THE MENT IS ENTERED INTO PURSUANT IN accordance with Clause 1.79 "(Contraction and authority)  It, X is required to sign the Normalized by UCF section heading SEE FOLLOW	DER NO. AS DESCRIE  THE CHANGES SET FORT  LECT THE ADMINISTRATIVE THE AUTHORITY OF FAR 43.  TO AUTHORITY OF:  Obligation of Funds."  This document and return of the comment of the commen	BED IN ITEM 14 H IN ITEM 14 ARE M E CHANGES (such as 103(b).  Jrn	changes in paying the copies to the copies t	ne issuing	office.
A. THIS CHANGE ORDER IS ISSUE NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTAPPROPRIATION of AMENDMENT/MODIFICATION  INCREASE IN OBLIGATION OF AMENDMENT/MODIFICATION  IMPORTANT: Contractor is not a condition of the condition of the contractor is not a condition of the condition of t	FIES THE CONTRACT/ORIED PURSUANT TO: (Specify authority)  FRACT/ORDER IS MODIFIED TO REFORTH IN ITEM 14, PURSUANT TO THE MENT IS ENTERED INTO PURSUANT IN accordance with Clause 1.79 "(Control and authority)  It, X is required to sign the Normalized by UCF section heading SEE FOLLOW	DER NO. AS DESCRII  THE CHANGES SET FORT  LECT THE ADMINISTRATIVITIES AUTHORITY OF FAR 43.  TO AUTHORITY OF:  Obligation of Funds."  This document and return of the comment a	BED IN ITEM 14 H IN ITEM 14 ARE M E CHANGES (such as 103(b).  Jrn	changes in paying the copies to the copies t	ing office,  ne issuing t force and e	office.

- 1. The purpose of this modification is to:
  - a. Incorporate Performance Metrics 6.6 entitled "Stores Inventory Turnover Rate" (See Attachment I) to Section 6 (Quality of Business and Administrative Practices) of the FY 2000 Jefferson Lab Performance Evaluation Plan in Appendix B of this contract.
  - b. Increase the amount obligated under this contract by \$359,607 and the amount obligated is changed from \$975,480,563.13 to \$975,840,170.13. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Fund Type	B&R Code	Change	. FY00	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	50,000.00	50,000.00
WA	KA0403011	0.00	40,000.00	40,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	0.00	5,680,000.00	10,463,575.00
WA	KB0102011	230,000.00	41,005,000.00	80,665,411.00
WA	KB0102011 (AIP A001)	0.00	1,300,000:00	2,800,000.00
WA	KB0102011 (GPP)	0.00	300,000.00	600,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (EQU)	(1,643.00)	6,098,357.00	14,628,398.00
WA	KB0102012	0.00	18,119,000.00	36,765,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	(230,000.00)	(230,000.00)	1,018,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	50,000.00	585,000.00	1,120,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
<b>4V</b>	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	0.00	20,000.00
WA	KP1402010 (EQU)	0.00	0.00	240,000.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00

Fund Type	B&R Code	Change	FY00	To Date
TF	KV0101012	0.00		
TF	KV0101014	0.00	0.00	280,000.00
YA	KC0204010	0.00	0.00	612,000.00
YA	KC0702000	0.00 0.00	0.00	11,943.00
YA	KC0701030		0.00	665,000.00
YA '	KT0101017	0.00	0.00	5,000.00
YA	KT0101018	0.00	0.00	412,000.00
ΥA	KT0101019	0.00	0.00	31,350.00
ΥA	KT0101025	0.00	0.00	5,000.00
YA	KU0100000	0.00	0.00	9,702.00
YA	KT0201013	0.00	0.00	484,000.00
YA	WB000000	0.00	0.00	87,300.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	116,000.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	29,800.00
. 1Y	650102000 (AGR94-002)	0.00	0.00	80,100.00
1Y .	650102000(OP AGR00-0004)	0.00	30,000.00	253,469.00
YA	AT2540000	11,250.00	11,250.00	11,250.00
3T	400403309 (OP AGR000096)	0.00	0.00	5,000.00
3T	40403309 (OP AGR27199MPHS058)	0.00	0.00	11,744,355.00
3T	40403309 (OP AGR-00-F-0439)	0.00	0.00	12,135.92
ΥA	KJ0102000	0.00	9,029,126.21	9,029,126.21
WA	KJ0200000	0.00	0.00	420,346.00
WA	KJ0101030	0.00	0.00	50,909.00
TC	820101000 (OP)	0.00	50,000.00	100,000.00
TC	820201000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	42,733.00	42,733.00
TC	820201000 (OP TSKER401501JAAA)	0.00	0.00	0.00
TC	820201000 (OF TSKER4015011113)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	457,267.00	457,267.00
TC	820201000 (OP TSKER401501111J CR40)	300,000.00	1,365,000.00	1,365,000.00
TC	820201000 (OP TSKER40150TJAAA CR40) DP0404012 (OP)	0.00	9,432,000.00	9,432,000.00
TC	39DP04000	0.00	0.00	957,864.00
TC	39DP04040	0.00	0.00	644,134.00
2Y		0.00	395,000.00	395,000.00
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	344,000.00	494,000.00
2Y	600305000 (OP AGR2000W003)	0.00	14,000.00	14,000.00
2Y	600305000 (OP AGR2000W002)	0.00	5,000.00	5,000.00
SA	600302000 (OP AGR2000W001)	0.00	27,000.00	27,000.00
WA	YN1901000	0.00	(348.00)	98,652.00
WA WA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
VVA	KB0401022	0.00	200,000.00	200,000.00
	TOTAL	\$359,607.00	\$94,349,385.21	975,840,170.13

<sup>2.</sup> All other terms and conditions of the contract remain unchanged and in full force and effect.

## FY 2000 Appendix B Performance Evaluation Plan Property Management and Protection

6.6 Stores Inventory turnover rate.

#### 6A. Overview (Page 42)

6.6 Reduction in the inventory of the Technical Stockroom by the amount of \$230,000 by September 30, 2000.

### 6B. Performance Evaluation Plan (Page 47)

6.6 Reduction in the inventory of the Technical Stockroom by the amount of \$230,000 by September 30, 2000.

#### Scoring:

Performance Level = Percentage of Technical Stockroom inventory reduction measured by dividing the total dollar stockroom inventory transferred to Property Management by the dollar value of the JLAB Technical Stockroom shelf inventory as of February 29, 2000. [1 point]

Performance Level %	Adjectival Rating	% Maximum Assigned Point
>- 22	Outstanding	100
>- 21 to <22	Excellent	85
>- 19 to <21	Good	75
>- 18 to <19	Marginal	60
>- 17 to <18	Unsatisfactory (Poor)	50
< 17	Unsatisfactory (Failing)	0

AMEN	MENT OF SOLICITATION	MODIFICATION O	F CONTRACT	1. CONTRAC	T ID CODE	PAGE 1	OF PAGES
. AMENDMENT	/MODIFICAITON NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCH	ASE REQ. NO.	5. PROJE	CT NO. (If ap	
	<b>A</b> 188	See Block 16C					
ISSUED BY	CODE		7. ADMINISTERED BY (I	f other than Item	6) CODE		
TJNAF Si 12000 Je	artment of Energy te Office fferson Avenue News, Virginia 23606						
NAME AND A	DDRESS OF CONTRACTOR (No., street, co	unty, State and ZIP Code)		(X) 9A. AM	ENDMENT OF SOLIC	CIATION NO.	
Southea	stern Universities Rese	earch, Inc.					
12000 N	lew York Avenue, NW			9B. DAT	TED (SEE ITEM 11)	<del></del>	
Washing	ton, D.C. 2005				,		
				DE	ODIFICATION OF CO —ACO5—84ER ATED (SEE ITEM 11)	40150	RDER NO.
DDE		CILITY CODE		Au	gust 3, 198	34	
ODE		M ONLY APPLIES TO	AMENDMENTS OF	SOLICITAT	IONS		
)By completing (c) By separa LACE DESIGN.	nowledge receipt of this amendment prior to g items 8 and 15, and returning te letter or telegram which includes a refere ATED FOR THE RECEIPT OF OFFERS PRIOR hange an offer already submitted, such char d is received prior to the opening hour and c	copies of the amendment; (b) nce to the solicitation and ame TO THE HOUR AND DATE SP ide may be made by telegram	) By acknowledging receip indment numbers. FAILUF	t of this amenda RE OF YOUR AC	nent on each copy o KNOWLEDGMENT T YOUR OFFER. If by	of the offer su O BE RECEIN	/ED AT THE
2. ACCOUNTI	NG AND APPROPIRATION DATA (If require	<u>1</u> )					
\$704,065	.94 - Increase						
	13. THIS ITEM O	NLY APPLIES TO MO THE CONTRACT/ORD	DIFICATION OF CO	NTRACTS/ IBED IN ITE	ORDERS. M 14.		
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PUR NO. IN ITEM 10A.						DRDER
	B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH	N ITEM 14, PURSUANT TO TH	HE AUTHORITY OF FAR 4	VE CHANGES (s 3.103(b).	uch as changes in p	aying office,	
×	c. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligat:	on of funds in a	accordance wit	h Clause	I.79 "Obli	gation	of fund
	D. OTHER (Specify type of modification a	and authority)					,
. IMPORT	ANT: Contractor I is not,	is required to sign th	is document and re	turn — 2	copies to	the issuir	ig office.
4. DESCRIPT	ION OF AMENDMENT/MODIFICATION (Org	anized by UCF section heading	s, including solicitation/co	ntract subject m	atter where feasible	.)	
		decrement referenced in term (	DA or 10A se heretofore r	hanged, remain	s unchanged and in	full force and	effect.
Except as prov	vided herein, all terms and conditions of the ND TITLE OF SIGNER (Type or print)	document referenced in item s	16A. NAME AND TITLE	OF CONTRACT	ING OFFICER (Type	or print)	
TUM. INMINIE A	tion of maries (1) ha as heart						
			James D. Ba		tracting O	fficer	. DATE SIGNE
15B. CONTRA	ACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES	) L S	. V1		08/28/0
	Signature of person authorized to sign)		(Signa	ture of Contract	ing Officer)		55, 25, 6

NSN 7540-01-152-8070 Previous edition unusable STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243

#### 1. The purpose of this modification is to:

The amount obligated under this contract is increased by \$704,065.94 and is changed from \$975,840,170.13 to \$976,544,236.07. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Fund Type	B&R Code	Change	FY00	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	50,000.00	50,000.00
WA	KA0403011	0.00	40,000.00	40,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	0.00	5,680,000.00	10,463,575.00
WA	KB0102011	(930,000.00)	40,075,000.00	79,735,411.00
WA	KB0102011 (AIP A001)	0.00	1,300,000.00	2,800,000.00
WA	KB0102011 (GPP)	930,000.00	1,230,000.00	1,530,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	6,098,357.00	14,628,398.00
WA	KB0102012	0.00	18,119,000.00	36,765,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	(230,000.00)	1,018,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	585,000.00	1,120,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	55,600.00	55,600.00	75,600.00
WA	KP1402010 (EQU)	99,400.00	99,400.00	339,400.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00

Fund Type	B&R Code	Change	FY00	To Date
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
YA	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00
YA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00	
YA	WB000000	0.00	0.00	87,300.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	116,000.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	29,800.00
1Y	650102000 (AGR94-002)	0.00		80,100.00
1Y	650102000(OP AGR00-0004)	49,065.94	30,000.00	253,469.00
Ϋ́Α	AT2540000	0.00	60,315.94	60,315.94
3T	400403309 (OP AGR000096)	0.00	0.00	5,000.00
3T	40403309 (OP AGR27199MPHS058)	0.00	0.00	11,744,355.00
3T	40403309 (OP AGR-00-F-0439)		0.00	12,135.92
YA	KJ0102000	0.00 0.00	9,029,126.21	9,029,126.21
WA	KJ0200000		0.00	420,346.00
WA	KJ0101030	0.00	0.00	50,909.00
TC	820101000 (OP)	0.00	50,000.00	100,000.00
TC	820201000 (OP)	0.00	0.00	599,853.00
TC		0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	42,733.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	0.00
	820201000 (OP TSKER4015000019 CR40)	(500,000.00)	(42,733.00)	(42,733.00)
TC TC	820201000 (OP TSKER401501111J CR40)	500,000.00	1,865,000.00	1,865,000.00
	820201000 (OP TSKER40150TJAAA CR40)	500,000.00	9,932,000.00	9,932,000.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	0.00	395,000.00	395,000.00
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	344,000.00	494,000.00
2Y	600305000 (OP AGR2000W003)	0.00	14,000.00	14,000.00
2Y	600305000 (OP AGR2000W002)	0.00	5,000.00	5,000.00
2Y	600302000 (OP AGR2000W001)	0.00	27,000.00	27,000.00
SA	YN1901000	0.00	(348.00)	98,652.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	200,000.00	200,000.00
	TOTAL	\$704,065.94	\$95,053,451.15	976,544,236.07

<sup>2.</sup> All other terms and conditions of the contract remain unchanged and in full force and effect.

	DMENT OF SOLICITATION/						1 41
2. AMENOMENT	/MODIFICAITON NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCH	RASE REQ. NO	o. 1	5, PROJECT	NO. (If applicate)
	A189	See Block 16C			ļ		, , , ,
SUED BY	CODE		7. ADMINISTERED BY	If other than	item 6)	CODE	I.
Denartma	ent of Energy	<u> </u>					1.75
			į				
TJNAF SILE OI							
12000 Jefferso							
Newport News	•			T 62 54	XIII I I I I I I I I I I I I I I I I I	SE OC. 12	
	DDRESS OF CONTRACTOR (No., street, cou	inty, State and ZIP Code)		(X) SA.	AMENDMENT	OF SOLICIA	HON NO.
	Universities Research Association, Inc.	-					
	k Avenue, NW			98.	DATED (SEE I	TEM 111	
Washington, E	D.C. 20005		w				
				10A	, MODIFICAT	ION OF CONT	TRACT/ORDER NO.
					-AC05-84EF		
				1	DATED (SEE		
	•			]			
CODE	1	CILITY CODE			gust 3, 1984		
	11. THIS ITEM	ONLY APPLIES TO	AMENDMENTS OF	SOLICITA	ATIONS		
	d is received prior to the opening hour and da			•	tor makes refe		
12. ACCOUNTI ≂ase \$200	D,000  13. THIS ITEM O IT MODIFIES  A. THIS CHANGE GROEF IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/C appropriation dute, Mo.) SET FORTH IN	NLY APPLIES TO MOTHE CONTRACT/ORE SUANT TO: (Specify authority DRDER IS MODIFIED TO REF	DER NO. AS DESCR THE CHANGES SET FOR LECT THE ADMINISTRATI THE AUTHORITY OF FAR 4	ONTRACT BED IN I' TH IN ITEM	S/ORDER: TEM 14. 14 ARE MAD	S. EIN THE COM	44114
12. ACCOUNTI Rase \$200	D,000  13. THIS ITEM O IT MODIFIES TO NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/C appropriation dite, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS	NLY APPLIES TO MOTHE CONTRACT/ORESUANT TO: (Specify authority) DRDER IS MODIFIED TO REF	DER NO. AS DESCR THE CHANGES SET FOR LECT THE ADMINISTRATA THE AUTHORITY OF FAR 4 TO AUTHORITY OF:	ONTRACT BED IN I' TH IN ITEM	S/ORDER: TEM 14. 14 ARE MAD	S. EIN THE COM	44114
12. ACCOUNTI Rase \$200	A. THIS CHANGE GROEA IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/C appropriation date, Mo.) SET FORTH IN  C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in accom-	NLY APPLIES TO MOTHE CONTRACT/ORE UANT TO: (Specify suthority DRDER IS MODIFIED TO REF HITEM 14, PURSUANT TO T ENTERED INTO PURSUANT dance with Clause 1.79 "C	DER NO. AS DESCR THE CHANGES SET FOR LECT THE ADMINISTRATA THE AUTHORITY OF FAR 4 TO AUTHORITY OF:	ONTRACT BED IN I' TH IN ITEM	S/ORDER: TEM 14. 14 ARE MAD	S. EIN THE COM	44114
12. ACCOUNTI	D,000  13. THIS ITEM O IT MODIFIES TO NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/C appropriation dite, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS	NLY APPLIES TO MOTHE CONTRACT/ORE UANT TO: (Specify suthority DRDER IS MODIFIED TO REF HITEM 14, PURSUANT TO T ENTERED INTO PURSUANT dance with Clause 1.79 "C	DER NO. AS DESCR THE CHANGES SET FOR LECT THE ADMINISTRATA THE AUTHORITY OF FAR 4 TO AUTHORITY OF:	ONTRACT BED IN I' TH IN ITEM	S/ORDER: TEM 14. 14 ARE MAD	S. EIN THE COM	44114
12. ACCOUNTI ase \$200 CHECK ONE	A. THIS CHANGE GROEA IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/C appropriation date, Mo.) SET FORTH IN  C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in accom-	NLY APPLIES TO MOTHE CONTRACT/ORE UANT TO: (Specify suthority DRDER IS MODIFIED TO REF HITEM 14, PURSUANT TO T ENTERED INTO PURSUANT dance with Clause 1.79 "C	DER NO. AS DESCR THE CHANGES SET FOR LECT THE ADMINISTRATI HE AUTHORITY OF FAR 4 TO AUTHORITY OF: Obligation of Funds."	ONTRACT IBED IN I' TITH IN ITEM VE CHANGES 3, 103(b).	S/ORDERS TEM 14. 14 ARE MAD	S. E IN THE COM anges in payin	44114
12. ACCOUNTI	ANT: Contractor X is not,	NLY APPLIES TO MOTHE CONTRACT/ORE WANT TO: (Specify authority)  DRDER IS MODIFIED TO REF HITEM 14, PURSUANT TO T ENTERED INTO PURSUANT dance with Clause 1.79 "Conditional control of the	DER NO. AS DESCR  THE CHANGES SET FOR  LECT THE ADMINISTRATI HE AUTHORITY OF FAR 4 TO AUTHORITY OF:  Obligation of Funds."  This document and re  To a comment and re  To a comment and re  To a comment and re  The comment and re	ONTRACT HBED IN I' TITH IN ITEM VE CHANGES 3, 103(b).	S/ORDER: TEM 14. 14 ARE MAD 6 (such as cha	S.  EIN THE COM  anges in payir  opies to the	ng office,
12. ACCOUNTI	A. THIS CHANGE GROEF IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/C appropriation date, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in accomp	NLY APPLIES TO MOTHE CONTRACT/ORE WANT TO: (Specify authority)  PROER IS MODIFIED TO REF HITEM 14, PURSUANT TO T ENTERED INTO PURSUANT dance with Clause 1.79 "Cond authority)  is required to sign the	DER NO. AS DESCR  THE CHANGES SET FOR  LECT THE ADMINISTRATI HE AUTHORITY OF FAR 4 TO AUTHORITY OF:  Obligation of Funds."  This document and re  To a comment and re  To a comment and re  To a comment and re  The comment and re	ONTRACT HBED IN I' TITH IN ITEM VE CHANGES 3, 103(b).	S/ORDER: TEM 14. 14 ARE MAD 6 (such as cha	S.  EIN THE COM  anges in payir  opies to the	ng office,
CHECK ONE  X  E. IMPORT	ANT: Contractor X is not,	NLY APPLIES TO MOTHE CONTRACT/ORE WANT TO: (Specify authority)  DRDER IS MODIFIED TO REF HITEM 14, PURSUANT TO T ENTERED INTO PURSUANT dance with Clause 1.79 "Conditional control of the	DER NO. AS DESCR  THE CHANGES SET FOR  LECT THE ADMINISTRATI HE AUTHORITY OF FAR 4 TO AUTHORITY OF:  Obligation of Funds."  This document and re  To a comment and re  To a comment and re  To a comment and re  The comment and re	ONTRACT HBED IN I' TITH IN ITEM VE CHANGES 3, 103(b).	S/ORDER: TEM 14. 14 ARE MAD 6 (such as cha	S.  EIN THE COM  anges in payir  opies to the	ng office,
CHECK ONE  X  E. IMPORT	ANT: Contractor X is not,	NLY APPLIES TO MOTHE CONTRACT/ORE WANT TO: (Specify authority)  DRDER IS MODIFIED TO REF HITEM 14, PURSUANT TO T ENTERED INTO PURSUANT dance with Clause 1.79 "Conditional control of the	DER NO. AS DESCR  THE CHANGES SET FOR  LECT THE ADMINISTRATI HE AUTHORITY OF FAR 4 TO AUTHORITY OF:  Obligation of Funds."  This document and re  To a comment and re  To a comment and re  To a comment and re  The comment and re	ONTRACT HBED IN I' TH IN ITEM VE CHANGES 3, 103(b).	S/ORDER: TEM 14. 14 ARE MAD 6 (such as cha	S.  EIN THE COM  anges in payir  opies to the	ng office,
CHECK ONE  X  E. IMPORT	ANT: Contractor X is not,	NLY APPLIES TO MOTHE CONTRACT/ORE WANT TO: (Specify authority)  DRDER IS MODIFIED TO REF HITEM 14, PURSUANT TO T ENTERED INTO PURSUANT dance with Clause 1.79 "Conditional control of the	DER NO. AS DESCR  THE CHANGES SET FOR  LECT THE ADMINISTRATI HE AUTHORITY OF FAR 4 TO AUTHORITY OF:  Obligation of Funds."  This document and re  To a comment and re  To a comment and re  To a comment and re  The comment and re	ONTRACT HBED IN I' TH IN ITEM VE CHANGES 3, 103(b).	S/ORDER: TEM 14. 14 ARE MAD 6 (such as cha	S.  EIN THE COM  anges in payir  opies to the	ng office,
CHECK ONE  X  E. IMPORT	ANT: Contractor X is not,	NLY APPLIES TO MOTHE CONTRACT/ORE WANT TO: (Specify authority)  DRDER IS MODIFIED TO REF HITEM 14, PURSUANT TO T ENTERED INTO PURSUANT dance with Clause 1.79 "Conditional control of the	DER NO. AS DESCR  THE CHANGES SET FOR  LECT THE ADMINISTRATI HE AUTHORITY OF FAR 4 TO AUTHORITY OF:  Obligation of Funds."  This document and re  To a comment and re  To a comment and re  To a comment and re  The comment and re	ONTRACT HBED IN I' TH IN ITEM VE CHANGES 3, 103(b).	S/ORDER: TEM 14. 14 ARE MAD 6 (such as cha	S.  EIN THE COM  anges in payir  pies to the	ng office,
2. ACCOUNTI	ANT: Contractor X is not,	NLY APPLIES TO MOTHE CONTRACT/ORE WANT TO: (Specify authority)  DRDER IS MODIFIED TO REF HITEM 14, PURSUANT TO T ENTERED INTO PURSUANT dance with Clause 1.79 "Conditional control of the	DER NO. AS DESCR  THE CHANGES SET FOR  LECT THE ADMINISTRATI HE AUTHORITY OF FAR 4 TO AUTHORITY OF:  Obligation of Funds."  This document and re  To a comment and re  To a comment and re  To a comment and re  The comment and re	ONTRACT HBED IN I' TH IN ITEM VE CHANGES 3, 103(b).	S/ORDER: TEM 14. 14 ARE MAD 6 (such as cha	S.  EIN THE COM  anges in payir  pies to the	ng office,
12. ACCOUNTI	ANT: Contractor X is not,	NLY APPLIES TO MOTHE CONTRACT/ORE WANT TO: (Specify authority)  DRDER IS MODIFIED TO REF HITEM 14, PURSUANT TO T ENTERED INTO PURSUANT dance with Clause 1.79 "Conditional control of the	DER NO. AS DESCR  THE CHANGES SET FOR  LECT THE ADMINISTRATI HE AUTHORITY OF FAR 4 TO AUTHORITY OF:  Obligation of Funds."  This document and re  To a comment and re  To a comment and re  To a comment and re  The comment and re	ONTRACT HBED IN I' TH IN ITEM VE CHANGES 3, 103(b).	S/ORDER: TEM 14. 14 ARE MAD 6 (such as cha	S.  EIN THE COM  anges in payir  pies to the	ng office,
12. ACCOUNTI	ANT: Contractor X is not,	NLY APPLIES TO MOTHE CONTRACT/ORE WANT TO: (Specify authority)  PROER IS MODIFIED TO REF I ITEM 14, PURSUANT TO T ENTERED INTO PURSUANT dance with Clause 1.79 "Cond authority)  is required to sign the	DER NO. AS DESCR THE CHANGES SET FOR LECT THE ADMINISTRATI HE AUTHORITY OF FAR 4 TO AUTHORITY OF: Obligation of Funds."  This document and re gs, including solicitation/co	ONTRACT IBED IN I' ITH IN ITEM  VE CHANGES 3. 103(b).	S/ORDERS TEM 14. 14 ARE MAD 6 (such as cha	S. EIN THE COM anges in paying	e issuing office.
12. ACCOUNTI	ANT: Contractor X is not, ON OF AMENDMENT/MODIFICATION (Organization of the delication, all terms and conditions of the delication.	NLY APPLIES TO MOTHE CONTRACT/ORE WANT TO: (Specify authority)  PROER IS MODIFIED TO REF I ITEM 14, PURSUANT TO T ENTERED INTO PURSUANT dance with Clause 1.79 "Cond authority)  is required to sign the	DER NO. AS DESCR  THE CHANGES SET FOR  LECT THE ADMINISTRATI HE AUTHORITY OF FAR 4  TO AUTHORITY OF:  Obligation of Funds."  This document and re  gs, including solicitation/co  VING PAGES	ONTRACT IBED IN I' ITH IN ITEM  VE CHANGES 3. 103(b).	S/ORDER: TEM 14.  14 ARE MAD  6 (such as cha	S.  EIN THE COM  anges in paying  pies to the  re fessible.)	e issuing office.
12. ACCOUNTI	ANT: Contractor X is not,	NLY APPLIES TO MOTHE CONTRACT/ORE WANT TO: (Specify authority)  PROER IS MODIFIED TO REF I ITEM 14, PURSUANT TO T ENTERED INTO PURSUANT dance with Clause 1.79 "Cond authority)  is required to sign the	DER NO. AS DESCR  THE CHANGES SET FOR  LECT THE ADMINISTRATI HE AUTHORITY OF FAR 4  TO AUTHORITY OF:  Obligation of Funds."  This document and re  gs, including solicitation/co  VING PAGES	ONTRACT IBED IN I' ITH IN ITEM  VE CHANGES 3. 103(b).	S/ORDER: TEM 14.  14 ARE MAD  6 (such as cha	S.  EIN THE COM  anges in paying  pies to the  re fessible.)	e issuing office.
12. ACCOUNTI	ANT: Contractor X is not, ON OF AMENDMENT/MODIFICATION (Organization of the delication, all terms and conditions of the delication.	NLY APPLIES TO MOTHE CONTRACT/ORE WANT TO: (Specify authority)  PROER IS MODIFIED TO REF I ITEM 14, PURSUANT TO T ENTERED INTO PURSUANT dance with Clause 1.79 "Cond authority)  is required to sign the	DER NO. AS DESCR  THE CHANGES SET FOR  LECT THE ADMINISTRATI HE AUTHORITY OF FAR 4  TO AUTHORITY OF:  Obligation of Funds."  Anis document and re  133, including solicitation/co  ING PAGES  9A or 10A, as heretofore of  16A. NAME AND TITLE	ONTRACT DIBED IN 1' THE IN ITEM  VE CHANGES 3. 103(b).  Cturn  orract subject  changed, rem  of CONTRA	S/ORDER: TEM 14.  14 ARE MAD: S (such as cha	S.  EIN THE COM  anges in paying  pies to the  re fessible.)	e issuing office.
12. ACCOUNTI  *ase \$200  CHECK ONE  X  E. IMPORT  14. DESCRIPT  14. DESCRIPT  15A. NAME A	ANT: Contractor X is not,  ON OF AMENDMENT/MODIFICATION (Organization and Contractor X is not,  In the contractor X is not,  ON OF AMENDMENT/MODIFICATION (Organization and Contractor)  (Increase in a contractor)  (Increase in	NLY APPLIES TO MOTHE CONTRACT/ORE WANT TO: (Specify authority)  PROER IS MODIFIED TO REF I ITEM 14, PURSUANT TO T ENTERED INTO PURSUANT dance with Clause 1.79 "Cond authority)  is required to sign the	DER NO. AS DESCR  THE CHANGES SET FOR  LECT THE ADMINISTRATI HE AUTHORITY OF FAR 4  TO AUTHORITY OF:  Obligation of Funds."  This document and re  gs, including solicitation/co  VING PAGES	ONTRACT DIBED IN 1' THE IN ITEM  VE CHANGES 3. 103(b).  Cturn  of contract subject  changed, rem  of contracting	S/ORDER: TEM 14.  14 ARE MAD: S (such as cha	S.  EIN THE COM  anges in paying  pies to the  re fessible.)	e issuing office.
ACCOUNTY  **ase \$200  CHECK ONE  X  E. IMPORT  14. DESCRIPT  14. DESCRIPT  15A. NAME A	ANT: Contractor X is not, ON OF AMENDMENT/MODIFICATION (Organization of the delication, all terms and conditions of the delication.	NLY APPLIES TO MOTHE CONTRACT/ORE WANT TO: (Specify authority)  PROER IS MODIFIED TO REF HTEM 14, PURSUANT TO T ENTERED INTO PURSUANT dance with Clause 1.79 "Conditional control of the c	DER NO. AS DESCR  THE CHANGES SET FOR  LECT THE ADMINISTRATI HE AUTHORITY OF FAR 4  TO AUTHORITY OF:  Obligation of Funds."  The document and re  To authority of:  Obligation of Funds."  The authority of:  Obligation of Funds."   ONTRACT DIBED IN 1' THE IN ITEM  VE CHANGES 3. 103(b).  Cturn  of contract subject  changed, rem  of contracting	S/ORDER: TEM 14.  14 ARE MAD  6 (such as cha	S.  EIN THE COM  anges in paying  pies to the  re fessible.)	e issuing office.	

NSN 7640-01-152-8070 Provious edition unusable STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243 1. The amount obligated under this contract is increased by \$200,000 and is changed from \$976,544,236.07 to \$976,744,236.07. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Fund Type	B&R Code	Change	FY00	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0,00	0.00	90,000,00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	50,000.00	50,000.00
WA	KA0403011	0,00	40,000.00	40,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	60,000.00	5,740,000.00	10,523,575.00
WA	KB0102011	0.00	40,075,000.00	79,735,411.00
WA	KB0102011 (AIP A001)	0.00	1,300,000.00	2,800,000.00
WA	KB0102011 (GPP)	0.00	1,230,000.00	1,530,000.00
WA	K80102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (EQU)	140,000.00	6,238,357.00	14,768,398.00
WA	KB0102012	00.0	18,119,000.00	36,765,425.00
WA	KB0102000 (AIP)(A001)	00.0	0.00	1,600,000.00
WA	KB0102000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	(230,000.00)	1,018,000.00
WA	KB0181015	0.00	. 0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
AW	KB0301020	0.00	585,000.00	1,120,000.00
WA ·	KC0301030	0.00	0.00	200,000.00
ΥA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0,00	<b>51,050,00</b> 0.00
AW	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	00.000,88
<b>4</b> V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	55,600.00	75,600.00
WA	KP1402010 (EQU)	0.00	99,400.00	339,400.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00

Fund Type	B&R Code	Change	FY00	To Date
TF	KV0101012	0.00	0.00	280,000,00
TF	KV0101014	0.00	0.00	612,000,00
ΥA	KC0204010	0.00	0.00	11,943.00
YΑ	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00
ΥA	KT0101017	0.00	0.00	412,000.00
ΥA	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
ΥA	KT0101025	0.00	0.00	9,702.00
ΥA	KU0100000	0.00	0.00	484,000.00
ΥA	KT0201013	0.00	0.00	87,300.00
ΥA	WB0000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Ÿ	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR94-002)	0.00	30,000-00	253,469.00
1Y	650102000(OP AGR00-0004)	(49,065.94)	11,250.00	11,250,00
Ϋ́A	AT2540000	0.00	0.00	5,000.00
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
31	40403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
3T	40403309 (OP AGR-00-F-0439)	0.00	9,029,126.21	9,029,126.21
YA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	50,000.00	100,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	42,733.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	0,00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	(42,733.00)	(42,733.00)
TC	820201000 (OP TSKER401501111J CR40)	0.00	1,865,000.00	1,865,000.00
TC	820201000 (OP TSKER40150TJAAA CR40)	0.00	9,932,000.00	9,932,000.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	0.00	395,000.00	395,000.00
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	344,000.00	494,000.00
2Y 2Y	600305000 (OP AGR2000W003)	0.00	14,000.00	14,000.00
2Y	600305000 (OP AGR2000W002)	0.00	5,000.00	5,000.00
	600302000 (OP AGR2000W001)	49,065.94	76,065.94	76,065.94
2Y	YN1901000	0.00	(348.00)	98,652.00
SA VAZA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	200,000.00	200,000.00
WA	TOTAL	\$200,000.00	\$95,253,451.15	\$976,744,236.07

<sup>2.</sup> All other terms and conditions of the contract remain unchanged and in full force and effect.

AMENDMENT OF SOLICITATION	/MODIFICATION	OF CONTRACT	11.0	CONTRACT ID CO	DDE	PAGE OF PAGES
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCH	ASE RI	Q. NO.	5. PROJECT N	1 3
A190	See Block 16C					· · · · · · · · · · · · · · · · · · ·
6. ISSUED BY CODE		7. ADMINISTERED BY (I	f other	than Item 6)	CODE	-
U.S. Department of Energy					_	
TJNAF Site Office						
12000 Jefferson Avenue	1					
Newport News, VA 23606						
8. NAME AND ADDRESS OF CONTRACTOR (No., street, co	unty, State and ZIP Code)		(X)	9A. AMENDME	NT OF SOLICIATI	ION NO.
Southeastern Universities Research Association, Inc.						
1200 New York Avenue, NW	•					
Washington, D.C. 20005	•			9B. DATED (SEI	E ITEM 11)	
				10A MODIFICA	TION OF CONTE	BACT/ORDER NO
				DE-AC05-841		LAOI/ONDEN NO.
			X	10B. DATED (S		
			] ``			
	CILITY CODE			August 3, 198	34	
11. THIS ITEM	M ONLY APPLIES TO	AMENDMENTS OF	SOLI	CITATIONS		
The above numbered solicitation is amended as set forth	h in Item 14. The hour and	date specified for receipt of (	Offers	is ex	tended, 🔲 i	s not extended.
Offers must acknowledge receipt of this amendment prior to	the hour and date specified	in the solicitation or as ame	nded, b	y one of the folio	wing methods:	
(a)By completing items 8 and 15, and returning		<ul> <li>b) By acknowledging receipt</li> </ul>				•
or (c) By separate letter or telegram which includes a referent PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR your desire to change an offer already submitted, such change amendment, and is received prior to the opening hour and desired to the opening hours are the opening hours are the opening hours and desired to the opening hours are the opening hours	TO THE HOUR AND DATE S ge may be made by telegran	PECIFIED MAY RESULT IN F	REJECT	ION OF YOUR O	FFER. If by virtu	e of this amendment
12. ACCOUNTING AND APPROPIRATION DATA (If required Increase \$1.940,000	HS					
	NLY APPLIES TO MO	DIFICATION OF CO	NTRA	CTS/ORDE	RS.	
IT MODIFIES	THE CONTRACT/ORD	DER NO. AS DESCRI	BED I	N ITEM 14.		
CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.	UANT TO: (Specify authority	y) THE CHANGES SET FORT	רו או א־	EM 14 ARE MA	DE IN THE CONT	RACT ORDER
B. THE ABOVE NUMBERED CONTRACT/C appropriation date, etc.) SET FORTH IN					nanges in paying	office,
C. THIS SUPPLEMENTAL AGREEMENT IS	ENTERED INTO PURSUANT	TO AUTHORITY OF:				
X Increase in obligation of funds in accord		obligation of Funds."		······································		
D. OTHER (Specify type of modification an	d authority)					
E. IMPORTANT: Contractor X is not,	is required to sign th	is document and retu	urn -	СС	opies to the i	ssuing office.
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organ	ized by UCF section heading SEE FOLLOW		ract su	bject matter whe	ere feasible.)	
being entered by the HHS.				OCT16 <b>'</b> 001	L1:15REC ORF	SC
WO HHS.						
m		•			•	
Except as provided herein, all terms and conditions of the do	ocument referenced in Item 9					
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF	- CONT	HACTING OFFIC	⊫ri(iype or print	.)
		James W. Skinner, Co	ntrost	na Officar		
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	James W. Skinner, Co				16C. DATE SIGNED
(Signature of person authorized to sign)		(Signatur	e of Co	ontracting Officer	)	10/1/00

1. The amount obligated under this contract is increased by \$1,940,000 and is changed from \$976,744,236.07 to \$978,684,236.07. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Fund Type	B&R Code	Change	FY01	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
<b>WA</b> 101 16.	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000 `	0.00	0.00	249,512,000.00
WA -	KB0101021	144,000.00	144,000.00	10,667,575.00
WA	KB0102011	1,100,000.00	1,100,000.00	80,835,411.00
WA	KB0102011 (AIP A001)	0.00	0.00	2,800,000.00
WA	KB0102011 (GPP)	88,000.00	88,000.00	1,618,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	0.00	14,768,398.00
WA	KB0102012 `	450,000.00	450,000.00	37,215,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	1,018,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	18,000.00	18,000.00	1,138,000.00
WA	KC0301030	0.00	0.00	200,000.00
YΑ	392100000	, 0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	0.00	75,600.00
WA	KP1402010 (EQU)	0.00	0.00	339,400.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
			OCT16*0011:15	FREC ORFSC

Fund Type	B&R Code	Change	FY01	To Date
	7		0.00	
TF	KV0101014	0.00	0.00	612,000.00
YA	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00
YA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
, YA	KT0201013	0.00	0.00	87,300.00
YA	WB0000000	0.00	0.00	116,000.00
.1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y "	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1Y	650102000 (OP AGR00-004)	0.00	0.00	11,250.00
YA -	AT2540000	0.00	0.00	5,000.00
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	40403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
3T	40403309 (OP AGR-00-F-0439)	0.00	0.00	9,029,126.21
YA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	0.00	100,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER401501111J CR40)	65,000.00	65,000.00	1,930,000.00
TC	820201000 (OP TSKER40150TJAAA CR4	65,000.00	65,000.00	9,997,000.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	0.00	0.00	395,000.00
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	0.00	494,000.00
2Y	600305000 (OP AGR2000W003)	0.00	0.00	14,000.00
2Y	600305000 (OP AGR2000W002)	0.00	0.00	5,000.00
2Y	600302000 (OP AGR2000W001)	0.00	0.00	76,065.94
SA	YN1901000	0.00	0.00	98,652.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	0.00	200,000.00
V V/~\	FS1000000	10,000.00	10,000.00	10,000.00
	parties.	10,000.00	\$1,940,000.00	978,684,236.07
	TOTAL	71,040,000.00	Ψ1,0π0,000.00	070,007,200.07

<sup>2.</sup> All other terms and conditions of the contract remain unchanged and in full force and effect.

AMENDMENT OF SOLICITATION	/MODIFICATION O	OF CONTRACT	1. CONTRACT ID CO	DE	1	PAGES
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCH	ASE REQ. NO.	5. PROJECT	T NO. (If applicable	1)
A191	See Block 16C		<u> </u>			
S. ISSUED BY CODE		7. ADMINISTERED BY (	f other than Item 6)	CODE		
U.S. Department of Energy						
ΓJNAF Site Office						
2000 Jefferson Avenue	•					
	•					
Newport News, VA 23606	17,00	<u> </u>	LOGI TO A AMENITMENT	T OF COLLOR	ATIONING	
NAME AND ADDRESS OF CONTRACTOR (No., street, or	,		(X) 9A. AMENDMEN	IT OF SOLICIA	ATION NO.	
Southeastern Universities Research Association, Inc	<b>,</b>		1			
200 New York Avenue, NW			9B. DATED (SEE	ITEM 11)		
Vashington, D.C. 20005			) Jab. DATES (OLL	11 (4)		
			10A, MODIFICA	TION OF CON	TRACT/ORDER N	10.
			DE-AC05-84E			
			100 DATED (SE			
			X TOB. DATED (SE	-		
CODE	ACILITY CODE	· · · · · · · · · · · · · · · · · · ·	August 3, 198	4		•
The state of the s	M ONLY APPLIES TO	AMENDMENTS OF				
_					<b>-</b>	
The above numbered solicitation is amended as set for	th in Item 14. The hour and d	ate specified for receipt of	Offers Lisext	tended,	is not extended	1.
 ffers must acknowledge receipt of this amendment prior t	o the hour and date specified i	n the solicitation or as ame	nded, by one of the follo	wing method	s:	
a)By completing Items 8 and 15, and returning	_ copies of the amendment; (b					ıd.
r (c) By separate letter or telegram which includes a refere LACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOF	R TO THE HOUR AND DATE SE	PECIFIED MAY RESULT IN	REJECTION OF YOUR O	FER. If by v.	irtue of this amen	idment
our desire to change an offer already submitted, such cha mendment, and is received prior to the opening hour and	nge may be made by telegram	or letter, provided each tel	egram or letter makes re	ference to the	solicitation and t	this
menament, and is received prior to the opening root atta	aua spacinau.					
2. ACCOUNTING AND APPROPIRATION DATA (If require	d)		,		,	
ncrease \$2,500,000						
	ONLY APPLIES TO MO	DIFICATION OF CO	NTRACTS/ORDER	RS		
IT MODIFIES	THE CONTRACT/ORD	ER NO. AS DESCRI	BED IN ITEM 14.			
CHECK ONE A. THIS CHANGE ORDER IS ISSUED PUF		,		DE IN THE CO	NTRACT ORDER	
NO. IN ITEM 10A.	, , , , , , , , , , , , , , , , , , ,	,				
B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH				ianges in pay	ing office,	
C. THIS SUPPLEMENTAL AGREEMENT IS			,, 100(b).			
	Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."					
D. OTHER (Specify type of modification a	and authority)					
. IMPORTANT: Contractor X is not,	is required to sign th	is document and ret	urn co	opies to th	ne issuina off	ice.
	<b></b>					
4. DESCRIPTION OF AMENDMENT/MODIFICATION (Orga			tract subject matter whe	re feasible.)		
	SEE FOLLOW	ING PAGES				
		100 no havatatah	anned remains uncheen	ed and in full	force and effect	
Except as provided herein, all terms and conditions of the	document referenced in item 9	16A. NAME AND TITLE C	E CONTRACTING OFFIC	ER (Type or	nrint)	
5A, NAME AND TITLE OF SIGNER (Type or print)		TOM. NAME AND THE	A SOM MACHING OFFIC		har na cort	
		1				
		James D. Baxter Jr.,		·		-2
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF	AMERICA		16C. DATE	SIGNI
		1 James 31	1. balo		10/-	/_
(Signature of person authorized to sign)		(Signate	ure of Contracting Office	r)	1/0/9/	100

Contract No. DE-AC05-84ER40150 Modification No. A191 Page 2 of 3

1. The amount obligated under this contract is increased by \$2,500,000 and is changed from \$978,684,236.07 to \$981,184,236.07. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Fund Type	B&R Code	Change	FY01	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	100,000.00	244,000.00	10,767,575.00
WA	KB0102011	700,000.00	1,800,000.00	81,535,411.00
WA	KB0102011 (AIP A001)	0.00	0,00	2,800,000.00
WA	KB0102011 (GPP)	0.00	88,000.00	1,618,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	0.00	14,768,398.00
WA	KB0102012	1,530,000.00	1,980,000.00	38,745,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	1,018,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	18,000.00	1,138,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	10,000.00	10,000.00	85,600.00
WA	KP1402010 (EQU)	0.00	0.00	339,400.00
WA	KS0101000	0.00	0.00	<b>4</b> ,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00

Contract No. DE-AC05-84ER40150

Modification No. A191

Page 3 of 3

Fund Type	B&R Code	Change	FY01	To Date
TE	10/0404044	0.00	0.00	642,000,00
TF YA	KV0101014 KC0204010	0.00 0.00	0.00 0.00	612,000.00 11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0702000 KC0701030	0.00	0.00	5,000.00
YA	KT0101017	0.00	0.00	412,000.00
YA	KT0101017	0.00	0.00	31,350.00
Ϋ́A	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
ΥA	KT0201013	0.00	0.00	87,300.00
ΥA	WB0000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1Y	650102000 (OP AGR00-004)	0.00	0.00	11,250.00
Ϋ́A	AT2540000	0.00	0.00	5,000.00
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	40403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
3T	40403309 (OP AGR-00-F-0439)	0.00	0.00	9,029,126.21
Ϋ́Α	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	0.00	100,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER401501111J CR40)	65,000.00	130,000.00	1,995,000.00
TC	820201000 (OP TSKER40150TJAAA CR40)	65,000.00	130,000.00	10,062,000.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	0.00	0.00	395,000.00
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	0.00	494,000.00
2Y	600305000 (OP AGR2000W003)	0.00	0.00	14,000.00
2Y	600305000 (OP AGR2000W002)	0.00	0.00	5,000.00
2Y	600302000 (OP AGR2000W001)	0.00	0.00	76,065.94
SA	YN1901000	0.00	0.00	98,652.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	0.00	200,000.00
·	FS1000000	30,000.00	40,000.00	40,000.00
	TOTAL	\$2,500,000.00	\$4,440,000.00	\$981,184,236.07

<sup>2.</sup> All other terms and conditions of the contract remain unchanged and in full force and effect.

AMENDMENT OF SOLICITATION	/MODIFICATION O	F CONTRACT	1. CONTRACT ID CO	DE	PAGE	OF PAGES
2. AMENDMENT/MODIFICAITON NO.	3. EFFECTIVE DATE	T4. REQUISITION/PURCH/	ASE REO. NO	5. PROJECT		1
A192	October 15, 2000	4. NEGOISTION, OROTA	AGE FIECE. NO.	3.11103201	NO. (II ap	plichiei
6. ISSUED BY CODE	October 13, 2000	7. ADMINISTERED BY (II	other than Item 6)	CODE	<del>                                     </del>	
U.S. Department of Energy	L	<b>-</b>			L	<del></del>
•						
TJNAF Site Office						
12000 Jefferson Avenue		1				
Newport News, VA 23606  8. NAME AND ADDRESS OF CONTRACTOR (No., street, or	umbs State and 7ID Code)		(X) ISA, AMENDME	NT OF SOLICIA	TION NO	
Southeastern Universities Research Association, Inc			(X) 9A. AMENDME	W 01 000101A	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
1200 New York Avenue, NW	•					
Washington, D.C. 20005			9B. DATED (SE	E ITEM 11)		
washington, D.C. 20003						
			10A. MODIFICA	TION OF CON	TRACT/OF	RDER NO.
			DE-AC05-84			
			X TOB. DATED IS	EE ITEM 11)		
	A CH 177 ( CODE			0.4		
	ACILITY CODE  M ONLY APPLIES TO	AMENDMENTS OF	August 3, 19	<del>04</del>		******
, i, inio iie	IN OILL AFFLIED TO	MINITED THE TO U	-			
The above numbered solicitation is amended as set for		-		ctended,	is not ex	tended.
Offers must acknowledge receipt of this amendment prior to	to the hour and date specified in	n the solicitation or as ame	nded, by one of the foll	owing methods	1:	
(a)By completing items 8 and 15, and returning	copies of the amendment; (b					
or (c) By separate letter or telegram which includes a refer PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR your desire to change an offer already submitted, such cha amendment, and is received prior to the opening hour and	R TO THE HOUR AND DATE SP nge may be made by telegram	PECIFIED MAY RESULT IN	REJECTION OF YOUR C	)PFER. 11 DV VII	itue of this	s amenument
12. ACCOUNTING AND APPROPIRATION DATA (If require	od)			······································		
Increase \$2,760,000						
13. THIS ITEM	ONLY APPLIES TO MO	DIFICATION OF CO	NTRACTS/ORDE	RS.		
	THE CONTRACT/ORD				NTRACT	IRDER
CHECK ONE A. THIS CHANGE ORDER IS ISSUED PUR NO. IN ITEM 10A.	SUANT TO: (Specify authority	) THE CHANGES SET FOR	ILL IN ILL DAY 14 VICE INV	OL III III CO	, iii	)
B. THE ABOVE NUMBERED CONTRACT	ORDER IS MODIFIED TO REFI	FCT THE ADMINISTRATIV	/E CHANGES (such as o	hanges in pavi	na office,	
B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH	IN ITEM 14, PURSUANT TO TI	HE AUTHORITY OF FAR 4	3.103(b).			
C. THIS SUPPLEMENTAL AGREEMENT						
X Increase in obligation of funds in acco	ordance with Clause I.79 "O	bligation of Funds."				
D. OTHER (Specify type of modification						
E. IMPORTANT: Contractor X is not,	is required to sign th	is document and ref	turn ——— c	copies to th	e issuin	g office.
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Org	<del></del>					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (OIG	SEE FOLLOW	ING PAGES		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
			3			
·						
				3 3 3 # 24	#==== == 1	affact
Except as provided herein, all terms and conditions of the	document referenced in Item 9	A or 10A, as heretofore of T16A. NAME AND TITLE	nanged, remains unchar	nged and in full	rorce and	епест.
15A. NAME AND TITLE OF SIGNER (Type or print)		TOM. NAME AND THE	or continuing off	.umii (i ) pro Oi (	F	
		Laura III Olimaa C	Pantrastina Officar			
	ISC DATE CIGNED	James W. Skinner, C	FAMERICA		I160	DATE SIGNE
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	DALLA - IA	Sline is		i	
		Sur Vi	ture of Contracting Office	er)	/	0-19-00
(Signature of person authorized to sign)		/ /Signal	and an assistance of the			

AMENDMENT OF SOLICITATION	/MODIFICATION O	F CONTRACT	1. CONTRACT ID CO	DE	PAGE	OF PAGES
2. AMENDMENT/MODIFICAITON NO.	3. EFFECTIVE DATE	T4. REQUISITION/PURCH/	ASE REO. NO	5. PROJECT		1
A192	October 15, 2000	4. NEGOISTION, OROTA	AGE FIECE. NO.	3.11103201	NO. (II ap	plichiei
6. ISSUED BY CODE	October 13, 2000	7. ADMINISTERED BY (II	other than Item 6)	CODE	<del>                                     </del>	
U.S. Department of Energy	L	<b>-</b>			L	<del></del>
•						
TJNAF Site Office						
12000 Jefferson Avenue		1				
Newport News, VA 23606  8. NAME AND ADDRESS OF CONTRACTOR (No., street, or	umbs State and 7ID Code)		(X) ISA, AMENDME	NT OF SOLICIA	TION NO	
Southeastern Universities Research Association, Inc			(X) 9A. AMENDME	W 01 000101A	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
1200 New York Avenue, NW	•					
Washington, D.C. 20005			9B. DATED (SE	E ITEM 11)		
washington, D.C. 20003						
			10A. MODIFICA	TION OF CON	TRACT/OF	RDER NO.
			DE-AC05-84			
			X TOB. DATED IS	EE ITEM 11)		
	A CH 177 ( CODE			0.4		
	ACILITY CODE  M ONLY APPLIES TO	AMENDMENTS OF	August 3, 19	<del>04</del>		******
, i, inio iie	IN OILL AFFLIED TO	MINITED THE TO U	-			
The above numbered solicitation is amended as set for		-		ctended,	is not ex	tended.
Offers must acknowledge receipt of this amendment prior to	to the hour and date specified in	n the solicitation or as ame	nded, by one of the foll	owing methods	1:	
(a)By completing items 8 and 15, and returning	copies of the amendment; (b					
or (c) By separate letter or telegram which includes a refer PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR your desire to change an offer already submitted, such cha amendment, and is received prior to the opening hour and	R TO THE HOUR AND DATE SP nge may be made by telegram	PECIFIED MAY RESULT IN	REJECTION OF YOUR C	)PFER. 11 DV VII	itue of this	s amenument
12. ACCOUNTING AND APPROPIRATION DATA (If require	od)			······································		
Increase \$2,760,000						
13. THIS ITEM	ONLY APPLIES TO MO	DIFICATION OF CO	NTRACTS/ORDE	RS.		
	THE CONTRACT/ORD				NTRACT	IRDER
CHECK ONE A. THIS CHANGE ORDER IS ISSUED PUR NO. IN ITEM 10A.	SUANT TO: (Specify authority	) THE CHANGES SET FOR	ILL IN ILL DAY 14 VICE INV	OL III III CO	, iii	)
B. THE ABOVE NUMBERED CONTRACT	ORDER IS MODIFIED TO REFI	FCT THE ADMINISTRATIV	/E CHANGES (such as o	hanges in pavi	na office,	
B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH	IN ITEM 14, PURSUANT TO TI	HE AUTHORITY OF FAR 4	3.103(b).			
C. THIS SUPPLEMENTAL AGREEMENT						
X Increase in obligation of funds in acco	ordance with Clause I.79 "O	bligation of Funds."				
D. OTHER (Specify type of modification						
E. IMPORTANT: Contractor X is not,	is required to sign th	is document and ref	turn ——— c	copies to th	e issuin	g office.
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Org	<del></del>					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (OIG	SEE FOLLOW	ING PAGES		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
			3			
·						
				3 3 3 # 24	#==== == 1	affact
Except as provided herein, all terms and conditions of the	document referenced in Item 9	A or 10A, as heretofore of T16A. NAME AND TITLE	nanged, remains unchar	nged and in full	rorce and	епест.
15A. NAME AND TITLE OF SIGNER (Type or print)		TOM. NAME AND THE	or continuing off	.umii (i ) pro Oi (	F	
		Laura III Olimaa C	Pantrastina Officar			
	ISC DATE CIGNED	James W. Skinner, C	FAMERICA		I160	DATE SIGNE
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	DALLA - IA	Sline is		i	
		Sur Vi	ture of Contracting Office	er)	/	0-19-00
(Signature of person authorized to sign)		/ /Signal	and an assistance of the			

Contract No. DE-AC05-84ER40150 Modification No. A192 Page 2 of 3

1. The amount obligated under this contract is increased by \$2,760,000 and is changed from \$981,184,236.07 to \$983,944,236.07. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Fund Type	B&R Code	Change	FY01	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	456,000.00	700,000.00	11,223,575.00
WA	KB0102011	1,000,000.00	2,800,000.00	82,535,411.00
WA	KB0102011 (AIP A001)	0.00	0.00	2,800,000.00
WA	KB0102011 (GPP)	212,000.00	300,000.00	1,830,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP Á001)	100,000.00	100,000.00	100,000.00
WA	KB0102012 (EQU)	0.00	0.00	14,768,398.00
WA	KB0102012	520,000.00	2,500,000.00	39,265,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	1,018,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	12,000.00	30,000.00	1,150,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,0\$0,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	10,000.00	20,000.00	95,600.00
WA	KP1402010 (EQU)	0.00	0.00	339,400.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00

Contract No. DE-AC05-84ER40150 Modification No. A192 Page 3 of 3

Fund Type	B&R Code	Change	FY01	To Date
TF	KV0101014	0.00	0.00	612,000,00
YA	KC0204010	0.00	0.00	612,000.00
YA	KC0702000	0.00	0.00	11,943.00 665,000.00
YA	KC0701030	0.00	0.00	5,000.00
YA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00	87,300.00
YA	WB0000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	
1Y	39WB00000 (IHE500000A002)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	29,800.00
1Y	650102000 (AGR94-002)	0.00	0.00	80,100.00 253,469.00
1Y	650102000 (OP AGR00-004)	0.00	0.00	11,250.00
YA	AT2540000	0.00	0.00	5,000.00
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	40403309 (OP AGR27199MPHS058)	0.00	0.00	
3T	40403309 (OP AGR-00-F-0439)	0.00	0.00	12,135.92 9,029,126.21
YA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	0.00	100,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER401501111J CR40)	195,000.00	325,000.00	2,190,000.00
TC	820201000 (OP TSKER40150TJAAA CR40)	195,000.00	325,000.00	
TC	DP0404012 (OP)	0.00	0.00	10,257,000.00 957,864.00
TC	39DP04000 `	0.00	0.00	644,134.00
TC	39DP04040	0.00	0.00	· · · · · · · · · · · · · · · · · · ·
2Y	600301010 (OP AGR98003105)	0.00	0.00	395,000.00 200,000.00
2Y	600305000 (OP AGR99W001)	0.00	0.00	494,000.00
2Y	600305000 (OP AGR2000W003)	0.00	0.00	14,000.00
2Y	600305000 (OP AGR2000W002)	0.00	0.00	5,000.00
2Y	600302000 (OP AGR2000W001)	0.00	0.00	76,065.94
SA	YN1901000	0.00	0.00	98,652.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	0.00	200,000.00
WA	FS1000000	(40,000.00)	0.00	0.00
WA	FS1001100	100,000.00	100,000.00	100,000.00
	TOTAL	\$2,760,000.00	\$7,200,000.00	\$983,944,236.07

<sup>2.</sup> All other terms and conditions of the contract remain unchanged and in full force and effect.

	DMENT OF SOLICITATION	/MODIFICATION C	F CONTRACT	1. CONTRACT ID CODE	PAGE OF PAGES
. AMENDMEN	T/MODIFICATION NO. A193	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHA	ASE REQ. NO. 5. PROJ	ECT NO. (If applicble)
. ISSUED BY	CODE		7. ADMINISTERED BY (II	other than Item 6) CODE	
IS Denartm	ent of Energy	L	1		
•	••				
JNAF Site O				•	
2000 Jeffers	•				
	s, VA 23606		<u> </u>		
	ADDRESS OF CONTRACTOR (No., street, co	•		(X) 9A. AMENDMENT OF SOL	LICIATION NO.
outheastern	Universities Research Association, Inc	<b>.</b>			
200 New Yo	rk Avenue, NW			9B. DATED (SEE ITEM 11)	
Vashington, I	D.C. 20005			SB. DATED (SEE ITEM TT)	
				10A. MODIFICATION OF	CONTRACT/ORDER NO
	•				
				DE-AC05-84ER40150 10B. DATED (SEE ITEM 1	
				X TOB. BATED (OLE TEM T	••
ODE ·	le,	ACILITY CODE		August 3, 1984	
) ) L	li i	M ONLY APPLIES TO	AMENDMENTS OF		
	11. 11110 112	OITE: ATTEMED TO			
crease \$2,8	13. THIS ITEM (	ONLY APPLIES TO MO	DIFICATION OF CO	NTRACTS/ORDERS.	
		THE CONTRACT/ORD			CONTRACT ORDER
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PUR NO. IN ITEM 10A.	SUANT TO: (Specify authority	) THE CHANGES SET FOR	'H IN ITEM 14 ARE MADE IN THE	
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PUR NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT, appropriation date, etc.) SET FORTH I	SUANT TO: (Specify authority ORDER IS MODIFIED TO REFL N ITEM 14, PURSUANT TO TH	) THE CHANGES SET FOR ECT THE ADMINISTRATIV HE AUTHORITY OF FAR 43	H IN ITEM 14 ARE MADE IN THE	·
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PUR NO. IN ITEM 10A.      B. THE ABOVE NUMBERED CONTRACT, appropriation date, etc.) SET FORTH I C. THIS SUPPLEMENTAL AGREEMENT IS	SUANT TO: (Specify authority /ORDER IS MODIFIED TO REFL N ITEM 14, PURSUANT TO TO S ENTERED INTO PURSUANT	) THE CHANGES SET FOR ECT THE ADMINISTRATIV HE AUTHORITY OF FAR 43 TO AUTHORITY OF:	H IN ITEM 14 ARE MADE IN THE	
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PUR NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT, appropriation date, etc.) SET FORTH I	SUANT TO: (Specify authority  /ORDER IS MODIFIED TO REFL N ITEM 14, PURSUANT TO TO S ENTERED INTO PURSUANT  rdance with Clause I.79 "O	) THE CHANGES SET FOR ECT THE ADMINISTRATIV HE AUTHORITY OF FAR 43 TO AUTHORITY OF:	H IN ITEM 14 ARE MADE IN THE	
X E. IMPORT	A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT, appropriation date, etc.) SET FORTH I.  C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in according to the contractor of the contractor is not.  ANT: Contractor is not.	SUANT TO: (Specify authority  ORDER IS MODIFIED TO REFL N ITEM 14, PURSUANT TO THE SENTERED INTO PURSUANT  Indiance with Clause 1.79 "O  and authority)  Is required to sign the	THE CHANGES SET FOR ECT THE ADMINISTRATIV HE AUTHORITY OF FAR 43 FO AUTHORITY OF: bligation of Funds."	H IN ITEM 14 ARE MADE IN THE E CHANGES (such as changes in .103(b).	paying office,  the issuing office.
X E. IMPORT	A. THIS CHANGE ORDER IS ISSUED PUR NO. IN ITEM 10A.      B. THE ABOVE NUMBERED CONTRACT, appropriation date, etc.) SET FORTH I C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in acco D. OTHER (Specify type of modification a	SUANT TO: (Specify authority  /ORDER IS MODIFIED TO REFL N ITEM 14, PURSUANT TO THE SENTERED INTO PURSUANT  rdance with Clause 1.79 "Outline authority)  Its required to sign the sented by UCF section heading	THE CHANGES SET FORT  ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43 FO AUTHORITY OF: bligation of Funds."  is document and ret s, including solicitation/con	H IN ITEM 14 ARE MADE IN THE E CHANGES (such as changes in .103(b).	paying office,  the issuing office.
X E. IMPORT	A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT, appropriation date, etc.) SET FORTH I.  C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in according to the contractor of the contractor is not.  ANT: Contractor is not.	SUANT TO: (Specify authority  ORDER IS MODIFIED TO REFL N ITEM 14, PURSUANT TO THE SENTERED INTO PURSUANT  Indiance with Clause 1.79 "O  and authority)  Is required to sign the	THE CHANGES SET FORT  ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43 FO AUTHORITY OF: bligation of Funds."  is document and ret s, including solicitation/con	H IN ITEM 14 ARE MADE IN THE E CHANGES (such as changes in .103(b).	paying office,  the issuing office.
X IMPORT	A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT, appropriation date, etc.) SET FORTH I.  C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in according to the contractor of the contractor is not.  ANT: Contractor is not.	SUANT TO: (Specify authority  /ORDER IS MODIFIED TO REFL N ITEM 14, PURSUANT TO THE SENTERED INTO PURSUANT  rdance with Clause 1.79 "Outline authority)  Its required to sign the sented by UCF section heading	THE CHANGES SET FORT  ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43 FO AUTHORITY OF: bligation of Funds."  is document and ret s, including solicitation/con	H IN ITEM 14 ARE MADE IN THE E CHANGES (such as changes in .103(b).	paying office,  the issuing office.
X . IMPORT	A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT, appropriation date, etc.) SET FORTH I.  C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in according to the contractor of the contractor is not.  ANT: Contractor is not.	SUANT TO: (Specify authority  /ORDER IS MODIFIED TO REFL N ITEM 14, PURSUANT TO THE SENTERED INTO PURSUANT  rdance with Clause 1.79 "Outline authority)  Its required to sign the sented by UCF section heading	THE CHANGES SET FORT  ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43 FO AUTHORITY OF: bligation of Funds."  is document and ret s, including solicitation/con	H IN ITEM 14 ARE MADE IN THE E CHANGES (such as changes in .103(b).	paying office,  the issuing office.
X . IMPORT	A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT, appropriation date, etc.) SET FORTH I.  C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in accordance of the contractor is not.  ANT: Contractor is not.	SUANT TO: (Specify authority  /ORDER IS MODIFIED TO REFL N ITEM 14, PURSUANT TO THE SENTERED INTO PURSUANT  rdance with Clause 1.79 "Outline authority)  Its required to sign the sented by UCF section heading	THE CHANGES SET FORT  ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43 FO AUTHORITY OF: bligation of Funds."  is document and ret s, including solicitation/con	H IN ITEM 14 ARE MADE IN THE E CHANGES (such as changes in .103(b).	paying office,  the issuing office.
X . IMPORT	A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT, appropriation date, etc.) SET FORTH I.  C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in accordance of the contractor is not.  ANT: Contractor is not.	SUANT TO: (Specify authority  /ORDER IS MODIFIED TO REFL N ITEM 14, PURSUANT TO THE SENTERED INTO PURSUANT  rdance with Clause 1.79 "Outline authority)  Its required to sign the sented by UCF section heading	THE CHANGES SET FORT  ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43 FO AUTHORITY OF: bligation of Funds."  is document and ret s, including solicitation/con	H IN ITEM 14 ARE MADE IN THE E CHANGES (such as changes in .103(b).	paying office,  the issuing office.
X . IMPORT	A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT, appropriation date, etc.) SET FORTH I.  C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in accordance of the contractor is not.  ANT: Contractor is not.	SUANT TO: (Specify authority  /ORDER IS MODIFIED TO REFL N ITEM 14, PURSUANT TO THE SENTERED INTO PURSUANT  rdance with Clause 1.79 "Outline authority)  Its required to sign the sented by UCF section heading	THE CHANGES SET FORT  ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43 FO AUTHORITY OF: bligation of Funds."  is document and ret s, including solicitation/con	H IN ITEM 14 ARE MADE IN THE E CHANGES (such as changes in .103(b).	paying office,
X E. IMPORT	A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT, appropriation date, etc.) SET FORTH I.  C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in accordance of the contractor is not.  ANT: Contractor is not.	SUANT TO: (Specify authority  /ORDER IS MODIFIED TO REFL N ITEM 14, PURSUANT TO THE SENTERED INTO PURSUANT  rdance with Clause 1.79 "Outline authority)  Its required to sign the sented by UCF section heading	THE CHANGES SET FORT  ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43 FO AUTHORITY OF: bligation of Funds."  is document and ret s, including solicitation/con	H IN ITEM 14 ARE MADE IN THE E CHANGES (such as changes in .103(b).	paying office,  the issuing office.
X E. IMPORT 4. DESCRIPT	A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT, appropriation date, etc.) SET FORTH I.  C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in accord. OTHER (Specify type of modification as ANT: Contractor x is not, in a contractor x is not.	SUANT TO: (Specify authority  /ORDER IS MODIFIED TO REFL N ITEM 14, PURSUANT TO THE ENTERED INTO PURSUANT  rdance with Clause 1.79 "Outline authority)  I is required to sign the anized by UCF section heading  SEE FOLLOW	THE CHANGES SET FORT  ECT THE ADMINISTRATIV  HE AUTHORITY OF:  bligation of Funds."  is document and ret  s, including solicitation/con  ING PAGES	H IN ITEM 14 ARE MADE IN THE E CHANGES (such as changes in .103(b).  urn ————————————————————————————————————	the issuing office.
X  E. IMPORT  4. DESCRIPT  Except as prov	A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT, appropriation date, etc.) SET FORTH IC. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in accord. OTHER (Specify type of modification at IC) OTHER (Specify type of modification at IC) OTHER (Specify Type of Modification (Organical Contractor) IS NOT THE ICON OF AMENDMENT/MODIFICATION (Organical Contractor) IS NOT THE ICON OF THE ICON O	SUANT TO: (Specify authority  /ORDER IS MODIFIED TO REFL N ITEM 14, PURSUANT TO THE ENTERED INTO PURSUANT  rdance with Clause 1.79 "Outline authority)  I is required to sign the anized by UCF section heading  SEE FOLLOW	THE CHANGES SET FORT  ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43 FO AUTHORITY OF: bligation of Funds."  IS document and ret IS, including solicitation/con ING PAGES	H IN ITEM 14 ARE MADE IN THE E CHANGES (such as changes in .103(b).  urn ————————————————————————————————————	paying office,  the issuing office.  e.)
X  E. IMPORT  14. DESCRIPT  Except as prov	A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT, appropriation date, etc.) SET FORTH I.  C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in accord. OTHER (Specify type of modification as ANT: Contractor x is not, in a contractor x is not.	SUANT TO: (Specify authority  /ORDER IS MODIFIED TO REFL N ITEM 14, PURSUANT TO THE ENTERED INTO PURSUANT  rdance with Clause 1.79 "Outline authority)  I is required to sign the anized by UCF section heading  SEE FOLLOW	THE CHANGES SET FORT  ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43 FO AUTHORITY OF: bligation of Funds."  IS document and ret IS, including solicitation/con ING PAGES	H IN ITEM 14 ARE MADE IN THE E CHANGES (such as changes in .103(b).  urn ————————————————————————————————————	paying office,  the issuing office. e.)
X  E. IMPORT  4. DESCRIPT  Except as prov	A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT, appropriation date, etc.) SET FORTH IC. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in accord. OTHER (Specify type of modification at IC) OTHER (Specify type of modification at IC) OTHER (Specify Type of Modification (Organical Contractor) IS NOT THE ICON OF AMENDMENT/MODIFICATION (Organical Contractor) IS NOT THE ICON OF THE ICON O	SUANT TO: (Specify authority  /ORDER IS MODIFIED TO REFL N ITEM 14, PURSUANT TO THE ENTERED INTO PURSUANT  rdance with Clause 1.79 "Outline authority)  I is required to sign the anized by UCF section heading  SEE FOLLOW	ECT THE ADMINISTRATIVE AUTHORITY OF FAR 43 TO AUTHORITY OF FAR 44 TO AUTHORITY OF FAR 45 TO	H IN ITEM 14 ARE MADE IN THE E CHANGES (such as changes in 103(b).  urn ————————————————————————————————————	paying office,  the issuing office. e.)
X E. IMPORT 14. DESCRIPT Except as prov	A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT, appropriation date, etc.) SET FORTH IC. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in accord. OTHER (Specify type of modification at CONTRACT) IS NOT ITEM (Specify Type of MANT: Contractor is not, is not, is not, is not, increase in obligation of the Wide of the Increase in obligation of funds in according to the Increase in obligation of funds in according to the Increase in obligation of funds in according to the Increase in obligation of the Increase in obligation obligation of the Increase in obligation	SUANT TO: (Specify authority  /ORDER IS MODIFIED TO REFL N ITEM 14, PURSUANT TO TI S ENTERED INTO PURSUANT  rdance with Clause I.79 "O and authority)  I is required to sign the anized by UCF section heading SEE FOLLOW  document referenced in Item 9	THE CHANGES SET FORT  ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43 TO AUTHORITY OF: bligation of Funds."  IS document and ret IS, including solicitation/con ING PAGES  A or 10A, as heretofore ch  16A. NAME AND TITLE C	H IN ITEM 14 ARE MADE IN THE E CHANGES (such as changes in .103(b).  urn ————————————————————————————————————	paying office,  the issuing office.  e.)  full force and effect. or print)
X E. IMPORT 14. DESCRIPT Except as prov	A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT, appropriation date, etc.) SET FORTH IC. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in accord. OTHER (Specify type of modification at IC) OTHER (Specify type of modification at IC) OTHER (Specify Type of Modification (Organical Contractor) IS NOT THE ICON OF AMENDMENT/MODIFICATION (Organical Contractor) IS NOT THE ICON OF THE ICON O	SUANT TO: (Specify authority  /ORDER IS MODIFIED TO REFL N ITEM 14, PURSUANT TO THE ENTERED INTO PURSUANT  rdance with Clause 1.79 "Outline authority)  I is required to sign the anized by UCF section heading  SEE FOLLOW	ECT THE ADMINISTRATIVE AUTHORITY OF FAR 43 TO AUTHORITY OF FAR 44 TO AUTHORITY OF FAR 45 TO	H IN ITEM 14 ARE MADE IN THE E CHANGES (such as changes in .103(b).  urn ————————————————————————————————————	paying office,  the issuing office.  e.)

Contract No. DE-AC05-84ER40150 Modification No. A193 Page 2 of 3

1. The amount obligated under this contract is increased by \$2,800,000 and is changed from \$983,944,236.07 to \$986,744,236.07. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Fund Type	B&R Code	Change	FY01	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	200,000.00	900,000.00	11,423,575.00
WA	KB0102011	1,390,000.00	4,190,000.00	83,925,411.00
ŴA	KB0102011 (AIP A001)	0.00	0.00	2,800,000.00
WA	KB0102011 (GPP)	0.00	300,000.00	1,830,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP A001)	100,000.00	200,000.00	200,000.00
WA	KB0102012 (EQU)	500,000.00	500,000.00	15,268,398.00
WA	KB0102012 (01CG)	100,000.00	100,000.00	100,000.00
WA	KB0102012	400,000.00	2,900,000.00	39,665,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	1,018,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	40,000.00	70,000.00	1,190,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	10,000.00	30,000.00	105,600.00
WA	KP1402010 (EQU)	0.00	00,0	339,400.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00

Contract No. DE-AC05-84ER40150 Modification No. A193 Page 3 of 3

Fund Type	B&R Code	Change	FY01	To Date
YA	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00
YA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00	87,300.00
YA	WB0000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1Y	650102000 (OP AGR00-004)	0.00	0.00	11,250.00
YA	AT2540000	0.00	0.00	5,000.00
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3 <b>T</b>	40403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
3T	40403309 (OP AGR-00-F-0439)	0.00	0.00	9,029,126.21
Ϋ́A	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	0.00	100,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER401501111J CR40)	0.00	325,000.00	2,190,000.00
TC	820201000 (OP TSKER40150TJAAA CR40)	0.00	325,000.00	10,257,000.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	0.00	0.00	395,000.00
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	0.00	494,000.00
2Y	600305000 (OP AGR2000W003)	0.00	0.00	14,000.00
2Y	600305000 (OP AGR2000W002)	0.00	0.00	5,000.00
2Y	600302000 (OP AGR2000W001)	0.00	0.00	76,065.94
SA	YN1901000	0.00	0.00	98,652.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	0.00	200,000.00
WA	FS1000000	0.00	0.00	0.00
WA	FS1001100	60,000.00	160,000.00	160,000.00
,	TOTAL	\$2,800,000.00	\$10,000,000.00	\$986,744,236.07

<sup>2.</sup> All other terms and conditions of the contract remain unchanged and in full force and effect.

AMENDMENT OF SOLICITATIO	N/MODIFICATION	OF CONTRACT	1. CONTRACT ID CO	DDE PA	GE OF PAGES
. AMENDMENT/MODIFICAITON NO.	3. EFFECTIVE DATE	14. REQUISITION/PURCH	ASE REO. NO.	5. PROJECT NO	(If applicble)
A194	See Block 16C				
. ISSUED BY CODE	Occ Block 100	7. ADMINISTERED BY (II	f other than Item 6)	CODE	
J.S. Department of Energy				L	
•					
JNAF Site Office					
2000 Jefferson Avenue					
ewport News, VA 23606				·	
NAME AND ADDRESS OF CONTRACTOR (No., street,	• •		(X) 9A. AMENDME	NT OF SOLICIATIO	NO.
outheastern Universities Research Association, I	nc.				
200 New York Avenue, NW	•		9B. DATED (SE	EITEM 11	
/ashington, D.C. 20005			BB. DATED (SE	E I FEW ( ) /	
			104 MODIFICA	ATION OF CONTRA	ACT/ORDER NO.
			DE-AC05-84		de l'onde anno.
			10B DATED (S		
			X TOB. BATES TO	•••••	
ODE	FACILITY CODE		August 3, 19	84	
	TEM ONLY APPLIES TO	AMENDMENTS OF			
					not extended.
IT MODIFIE	ONLY APPLIES TO MES THE CONTRACT/OR	IDER NO. AS DESCR	IBED IN HEM 14		RACT ORDER
CHECK ONE A. THIS CHANGE ORDER IS ISSUED P NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRA	·				
appropriation date, etc.) SET FORT	TH IN ITEM 14, PURSUANT TO	THE AUTHORITY OF FAR 4	3.103(b).		
C. THIS SUPPLEMENTAL AGREEMEN					
X Increase in obligation of funds in ac	ccordance with Clause 1.79	'Obligation of Funds."			
D. OTHER (Specify type of modification	on and authority)				
E. IMPORTANT: Contractor X is not,	is required to sign t	this document and re	turn —	copies to the	issuing office.
14. DESCRIPTION OF AMENDMENT/MODIFICATION (C	Organized by UCF section headi				<u> </u>
Except as provided herein, all terms and conditions of	the document referenced in Item	n 9A or 10A, as heretofore of	changed, remains uncha	inged and in full for	rce and effect.
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE	OF CONTRACTING OF	FICER (Type or prin	nt)
		lames D Rayter Ir	., Contracting Officer		
	115C. DATE SIGNE	D 16B. UNITED STATES	OF MERICA		16C. DATE SIGNE
15B. CONTRACTOR/OFFEROR	TISC, DATE SIGNE	1 6 me 50	1/21	<u> </u>	- 10/31/0
(Signature of person authorized to sign)		(Sign	ature of Contracting Off	icer)	

Contract No. DE-AC05-84ER40150 Modification No. A194 Page 2 of 3

1. The amount obligated under this contract is increased by \$10,280 and is changed from \$986,744,236.07 to \$986,754,516.07. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Fund Type	B&R Code	Change	FY01	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	0.00	900,000.00	11,423,575.00
WA	KB0102011	0.00	4,190,000.00	83,925,411.00
WA	KB0102011 (AIP A001)	0.00	0.00	2,800,000.00
WA	KB0102011 (GPP)	0.00	300,000.00	1,830,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP A001)	0.00	200,000.00	200,000.00
WA	KB0102012 (EQU)	0.00	500,000.00	15,268,398.00
WA	KB0102012 (01CG)	0.00	100,000.00	100,000.00
WA	KB0102012	0.00	2,900,000.00	39,665,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	1,018,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	70,000.00	1,190,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	30,000.00	105,600.00
WA	KP1402010 (EQU)	0.00	0,00	339,400.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00

Contract No. DE-AC05-84ER40150 Modification No. A194 Page 3 of 3

Fund Type	B&R Code	Change	FY01	To Date
YA	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00
YA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00	87,300.00
YA	WB000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1Y	650102000 (OP AGR00-004)	0.00	0.00	11,250.00
YA	AT2540000	0.00	0.00	5,000.00
ЗТ	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	40403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
3Т	40403309 (OP AGR-00-F-0439)	0.00	0.00	9,029,126.21
YA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	0.00	100,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER401501111J CR40)	0.00	325,000.00	2,190,000.00
TC	820201000 (OP TSKER40150TJAAA CR40)	0.00	325,000.00	10,257,000.00
TC .	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	0.00	0.00	395,000.00
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	0.00	494,000.00
2Y	600305000 (OP AGR2000W003)	6,000.00	6,000.00	20,000.00
2Y	600305000 (OP AGR2000W002)	0.00	0.00	5,000.00
2Y	600302000 (OP AGR2000W001)	4,280.00	4,280.00	80,345.94
SA	YN1901000	0.00	0.00	98,652.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	0.00	200,000.00
WA	FS1000000	0.00	0.00	0.00
WA	FS1001100	0.00	160,000.00	160,000.00
	TOTAL	\$10,280.00	\$10,010,280.00	\$986,754,516.07

<sup>2.</sup> All other terms and conditions of the contract remain unchanged and in full force and effect.

	OMENT OF SOLICITATION	I/MODIFICATION O	F CONTRACT	1. CONTRACT ID C		PAGE OF PAGE
. AMENDMENT	/MODIFICATION NO. A195	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHA	ASE REQ. NO.	5. PROJEC	T NO. (If applicble)
S. ISSUED BY	CODE		7. ADMINISTERED BY (If	other than Item 6)	CODE	
U.S. Departme	ent of Energy		1			<u> </u>
TJNAF Site O					•	
-						
2000 Jeffers						
lewport News			<u> </u>			
	ADDRESS OF CONTRACTOR (No., street, o			(X) 9A. AMENDME	NT OF SOLICI	ATION NO.
	Universities Research Association, In	C.				
200 New Yor	k Avenue, NW			9B. DATED (SE	E ITEM 11)	
/ashington, [	D.C. 20005			J J J J J J J J J J J J J J J J J J J		
				10A. MODIFIC	ATION OF CO	NTRACT/ORDER NO.
			*	DE-AC05-84		
	•			10B DATED (S		
				X I'OB. DATES "		•
ODE	16	ACILITY CODE		August 3, 19	984	
		EM ONLY APPLIES TO	AMENDMENTS OF			
	d is received prior to the opening hour and	ange may be made by telegram date specified.				
nendment, an 2. ACCOUNTI crease \$5,2	d is received prior to the opening hour and NG AND APPROPIRATION DATA (If require 00,000  13. THIS ITEM IT MODIFIES  A. THIS CHANGE ORDER IS ISSUED PU NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT	only APPLIES TO MO THE CONTRACT/ORD RSUANT TO: (Specify authority)	DIFICATION OF CO ER NO. AS DESCRI THE CHANGES SET FORT ECT THE ADMINISTRATIV	BED IN ITEM 14 TH IN ITEM 14 ARE M. TE CHANGES (such as	ERS. ADE IN THE CO	ONTRACT ORDER
nendment, an 2. ACCOUNTI crease \$5,2	d is received prior to the opening hour and NG AND APPROPIRATION DATA (If require 00,000  13. THIS ITEM IT MODIFIES  A. THIS CHANGE ORDER IS ISSUED PU NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH	ONLY APPLIES TO MO THE CONTRACT/ORD RSUANT TO: (Specify authority)  T/ORDER IS MODIFIED TO REFL IN ITEM 14, PURSUANT TO THE	DIFICATION OF CO ER NO. AS DESCRI THE CHANGES SET FORT ECT THE ADMINISTRATIV IE AUTHORITY OF FAR 43	BED IN ITEM 14 TH IN ITEM 14 ARE M. TE CHANGES (such as	ERS. ADE IN THE CO	ONTRACT ORDER
nendment, and 2. ACCOUNTI crease \$5,2 CHECK ONE	d is received prior to the opening hour and NG AND APPROPIRATION DATA (If require 00,000  13. THIS ITEM IT MODIFIES  A. THIS CHANGE ORDER IS ISSUED PU NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH  C. THIS SUPPLEMENTAL AGREEMENT	ONLY APPLIES TO MO THE CONTRACT/ORD RSUANT TO: (Specify authority) T/ORDER IS MODIFIED TO REFL IN ITEM 14, PURSUANT TO THE	DIFICATION OF CO ER NO. AS DESCRI THE CHANGES SET FORT ECT THE ADMINISTRATIV HE AUTHORITY OF FAR 43	BED IN ITEM 14 TH IN ITEM 14 ARE M. TE CHANGES (such as	ERS. ADE IN THE CO	ONTRACT ORDER
mendment, an	d is received prior to the opening hour and NG AND APPROPIRATION DATA (If require 00,000  13. THIS ITEM IT MODIFIES  A. THIS CHANGE ORDER IS ISSUED PU NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH	ONLY APPLIES TO MO THE CONTRACT/ORD RSUANT TO: (Specify authority)  T/ORDER IS MODIFIED TO REFL IN ITEM 14, PURSUANT TO THE ENTERED INTO PURSUANT TO ORDANGE WITH Clause 1.79 "O	DIFICATION OF CO ER NO. AS DESCRI THE CHANGES SET FORT ECT THE ADMINISTRATIV HE AUTHORITY OF FAR 43	BED IN ITEM 14 TH IN ITEM 14 ARE M. TE CHANGES (such as	ERS. ADE IN THE CO	ONTRACT ORDER
2. ACCOUNTING TEACHER STORE ST	ANT: Contractor X is not,	date specified.  ONLY APPLIES TO MO THE CONTRACT/ORD RSUANT TO: (Specify authority)  T/ORDER IS MODIFIED TO REFL IN ITEM 14, PURSUANT TO TH IS ENTERED INTO PURSUANT TO ordance with Clause 1.79 "Of and authority)  Is required to sign the	DIFICATION OF CO ER NO. AS DESCRI THE CHANGES SET FORT ECT THE ADMINISTRATIV HE AUTHORITY OF FAR 43 TO AUTHORITY OF: bilgation of Funds."	BED IN ITEM 14 TH IN ITEM 14 ARE M. TE CHANGES (such as .103(b).	ERS.  ADE IN THE Co	ONTRACT ORDER
2. ACCOUNTING PROPERTY OF THE	d is received prior to the opening hour and NG AND APPROPIRATION DATA (If require 00,000  13. THIS ITEM IT MODIFIES  A. THIS CHANGE ORDER IS ISSUED PU NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRAC appropriation date, etc.) SET FORTH  C. THIS SUPPLEMENTAL AGREEMENT Increase in obligation of funds in acc D. OTHER (Specify type of modification	ONLY APPLIES TO MO THE CONTRACT/ORD RSUANT TO: (Specify authority)  T/ORDER IS MODIFIED TO REFL IN ITEM 14, PURSUANT TO THE IS ENTERED INTO PURSUANT TO ordance with Clause 1.79 "Or and authority)  Is required to sign the panized by UCF section headings SEE FOLLOWS	DIFICATION OF CO ER NO. AS DESCRI THE CHANGES SET FORT ECT THE ADMINISTRATIV HE AUTHORITY OF: DIGATION OF FAR 43 TO AUTHORITY OF: bligation of Funds."	BED IN ITEM 14 ARE M. FE CHANGES (such as .103(b).  Urn	Copies to there feasible.)	ONTRACT ORDER  ving office,  he issuing office.
2. ACCOUNTING PROPERTY OF THE	ANT: Contractor X is not, CON OF AMENDMENT/MODIFICATION (Organised berein, all terms and conditions of the interest of the conditions of the c	ONLY APPLIES TO MO THE CONTRACT/ORD RSUANT TO: (Specify authority)  T/ORDER IS MODIFIED TO REFL IN ITEM 14, PURSUANT TO THE IS ENTERED INTO PURSUANT TO ordance with Clause 1.79 "Or and authority)  Is required to sign the panized by UCF section headings SEE FOLLOWS	DIFICATION OF CO ER NO. AS DESCRI THE CHANGES SET FORT ECT THE ADMINISTRATIV HE AUTHORITY OF: bligation of Funds."  Is document and ret s, including solicitation/con NG PAGES	BED IN ITEM 14  TH IN ITEM 14 ARE M.  TE CHANGES (such as 1.103(b).  Urn  tract subject matter w.)	Copies to there feasible.)	ONTRACT ORDER  ving office,  the issuing office.
X  E. IMPORT  4. DESCRIPTI  Except as provi	ANT: Contractor X is not, CON OF AMENDMENT/MODIFICATION (Organised berein, all terms and conditions of the interest of the conditions of the c	ONLY APPLIES TO MO THE CONTRACT/ORD RSUANT TO: (Specify authority)  T/ORDER IS MODIFIED TO REFL IN ITEM 14, PURSUANT TO THE IS ENTERED INTO PURSUANT TO ordance with Clause 1.79 "Or and authority)  Is required to sign the panized by UCF section headings SEE FOLLOWS	DIFICATION OF COER NO. AS DESCRION THE CHANGES SET FORTH ADMINISTRATIVE AUTHORITY OF FAR 43 TO AUTHORITY OF: bligation of Funds."  Is document and return	BED IN ITEM 14  TH IN ITEM 14 ARE M.  TE CHANGES (such as 1.103(b).  Urn  tract subject matter with tract subject matter w	Copies to there feasible.)	ONTRACT ORDER  ving office,  he issuing office.

Contract No. DE-AC05-84ER40150 Modification No. A195 Page 2 of 3

1. The amount obligated under this contract is increased by \$5,200,000 and is changed from \$986,754,516.07 to \$991,954,516.07. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Fund Type	B&R Code	Change	FY01	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	200,000.00	1,100,000.00	11,623,575.00
WA	KB0102011	3,020,000.00	7,210,000.00	86,945,411.00
WA	KB0102011 (AIP A001)	0.00	0.00	2,800,000.00
WA	KB0102011 (GPP)	0.00	300,000.00	1,830,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP A001)	0.00	200,000.00	200,000.00
WA	KB0102012 (EQU)	500,000.00	1,000,000.00	15,768,398.00
WA	KB0102012 (01CG)	100,000.00	200,000.00	200,000.00
WA	KB0102012	600,000.00	3,500,000.00	40,265,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	1,018,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	30,000.00	100,000.00	1,220,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	30,000.00	105,600.00
WA	KP1402010 (EQU)	0.00	0.00	339,400.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00

Contract No. DE-AC05-84ER40150 Modification No. A195 Page 3 of 3

Fund Type	B&R Code	Change	FY01	To Date
YA	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00
YA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00	87,300.00
YA	WB0000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1Y	650102000 (OP AGR00-004)	0.00	0.00	11,250.00
YA	AT2540000	0.00	0.00	5,000.00
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	40403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
3T	40403309 (OP AGR-00-F-0439)	0.00	0.00	9,029,126.21
YA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	0.00	100,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER4015011111J CR40)	325,000.00	650,000.00	•
TC	820201000 (OP TSKER40150TJAAA CR40)	325,000.00	650,000.00	2,515,000.00 10,582,000.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	0.00	0.00	395,000.00
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	0.00	494,000.00
2Y	600305000 (OP AGR2000W003)	0.00	6,000.00	20,000.00
2Y	600305000 (OP AGR2000W002)	0.00	0.00	5,000.00
2Y	600302000 (OP AGR2000W001)	0.00	4,280.00	
SA	YN1901000	0.00	0.00	80,345.94 98,652.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	0.00	200,000.00
WA	FS1000000	0.00	0.00	200,000.00
WA	FS1001100	100,000.00	260,000.00	260,000.00
••••	TOTAL	\$5,200,000.00	\$15,210,280.00	\$991,954,516.07
	=	+0,200,000,00	¥10,210,200.00	φου τ <sub>1</sub> ουτ <sub>1</sub> ο του τ

2. All other terms and conditions of the contract remain unchanged and in full force and effect.

AMEN	MENT (	OF SOLICITATION/	MODIFICATION O	E CONTRACT	1. C	ONTRACT ID CO	DÉ	PAGE	OF PAGES
		a				·			1
2. AMENDMENT			3. EFFECTIVE DATE	4. REQUISITION/PURCHA	ASE RE	Q. NO.	5. PROJEC	NO. (If ap	plicble)
	A19		See Block 16C				1		·····
6. ISSUED BY		CODE		7. ADMINISTERED BY (II	t other t	than Item 6)	CODE	L	
U.S. Departme	ent of Energ	y <sup>*</sup>							
TJNAF Site O	ffice								
12000 Jeffers	on Avenue	•							
									-
Newport News		ONTRACTOR (No., street, cou	·	<u> </u>	1 (57)	OA AMENIONES	T OF COLIO	ATIONALO	
			inty, State and ZIP Code)		(X)	9A. AMENDMEN	IT OF SOLICE	ATION NO.	
		Research Association, Inc.			}		. e.		
1200 New Yor	rk Avenue, N	IM.				OD DATED ISE	DTCL4 4 4 1		
Washington, [	D.C. 20005	· ·				98. DATED (SEE	(TENT (T)	•	
					ļ	101 1100/5/01	71011 05 00	TTO 4 07 10 F	SEE US
		:				10A. MODIFICA		NTRACT/OF	IDER NO.
						DE-AC05-84E			
					X	10B. DATED (SE	E (IEM 11)		
· · · · · · · · · · · · · · · · · · ·			,		]				
CODE		<u> </u>	CILITY CODE			August 3, 198	14		
		11. THIS ITEN	MONLY APPLIES TO	AMENDMENTS OF	SOLI	CITATIONS			
PLACE DESIGN your desire to camendment, an	ATED FOR TH hange an offe d is received (	agram which includes a referent RECEPT OF OFFERS PRIOR already submitted, such changer of the opening hour and date of the opening hours are opening to the	TO THE HOUR AND DATE SP ge may be made by telegram attemption to specified.	ECIFIED MAY RESULT IN I	REJECT	ION OF YOUR O	FFER. If by v	rirtue of this	s amendment
ncrease \$60,	681.654.06						<u> </u>	~ .	
			NLY APPLIES TO MO				RS.		
		1	THE CONTRACT/ORD			•	SE IN THE O	NATO A CIT C	20000
CHECK ONE		ANGE ORDER IS ISSUED PURS EM 10A.	SOANT TO: (Specify authority)	THE CHANGES SET FOR	111 164 1	I ENI 14 ARE WA	DE IN THE CO	JN IRACT C	MOEN
			<del></del>						
	1	OVE NUMBERED CONTRACT/( lation date, etc.) SET FORTH IN				-	hanges in pay	ring office,	
	C. THIS SU	IPPLEMENTAL AGREEMENT IS	ENTERED INTO PURSUANT 1	O AUTHORITY OF:					
X	Increase in	obligation of funds in accor	dance with Clause I.79 *O	bligation of Funds.*					
	D. OTHER	(Specify type of modification ar	nd authority)					*****	
	ANT: Co		in an action of the latest Alle					ha iaawia	a office
E. HVIEURI	ANT. COI	tractor X is not,	is required to sign thi	s gocoment and let	LUI() ·	C	opies to t	110 1350111	g onice.
14. DESCRIPT	ION OF AMEN	DMENT/MODIFICATION (Organ	•	•	tract si	ibject matter wh	ere feasible.)		
			SEE FOLLOWI	NG PAGES					
						•			
Except as prov	ided herein, a	il terms and conditions of the d	ocument referenced in Item 9						effect.
15A. NAME A	ND TITLE OF	SIGNER (Type or print)		16A. NAME AND TITLE O	OF CON	TRACTING OFFI	CER (Type or	print)	
				James W. Skinner, C	ontrac	ting Officer	1		
15B. CONTRA	CTORVOFFER	OR	15C. DATE SIGNED	16B./ONITED STATES OF				16C.	DATE SIGN
		1		James - 11/	XV.	sund.			Jack
		erson authorized to sign)	<u> </u>	Signat		Contracting Office	ari	<u>  (</u>	(127/0

Contract No. DE-AC05-84ER40150 Modification No. A196 Page 2 of 3

1. The amount obligated under this contract is increased by \$60,681,654.06 and is changed from \$991,954,516.07 to \$1,052,636,170.13. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Fund Type	B&R Code	Change	FY01	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	4,420,000.00	5,520,000.00	<b>16,043,575</b> .00
WA	KB0102011	32,419,000.00	39,629,000.00	<b>119,364,411</b> .00
WA	KB0102011 (AIP A001)	1,275,000.00	1,275,000.00	4,075,000.00
WA	KB0102011 (GPP)	0.00	300,000.00	1,830,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP A001)	(200,000.00)	0.00	0.00
WA	KB0102012 (EQU)	3,901,000.00	4,901,000.00	19,669,398.00
WA	KB0102012 (01CG)	(200,000.00)	0.00	0.00
WA	KB0102012 (EQUEQU01CG)	1,018,000.00	1,018,000.00	1,018,000.00
WA	KB0102012	14,084,000.00	17,584,000.00	54,349,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	1,018,000.00
WA	KB0181015	0.00	0.00	5,772, <b>00</b> 0.00
WA	KB0300000	0.00	0.00	2,789,700.00
	KB0301020	408,000.00	508,000.00	1,628,000.00
WA	KC0301030	0.00	0.00	200,000.00
WA	392100000	0.00	0.00	653,176.00
YA MA		0.00	0.00	312,939,618.00
WA	39KB00000 (87R203)		0.00	645,000.00
WA	39KB00000 (GPE300)	> 0.00 0.00		
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00 6,861.00
WA	35K\$01000	0.00	0.00	49,618.00
4V	KT0101011	0.00	0.00	496,000.00
YA	KT0101012	0.00	0.00	
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	70,000.00	100,000.00	175,600.00
WA	KP1402010 (EQU)	0.00	0.00	339,400.00
WA	KS0 101000	0.00	0.00	4,000.00
WA	KS0 <mark>102211</mark>	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00

12/06/00 10:28 P.005/005 Contract No. DE-AC05-84ER40150 Modification No. A196 Page 3 of 3

Frank True				
Fund Type	B&R Code	Change	FY01	To Date
YA	KC0204010			
YA	KC0702000	0.00	0.00	11,943.00
YA	KC0701030	0.00	0.00	665,000.00
YA	KT0101017	0.00	0.00	5,000.00
YA	KT0101018	0.00	0.00	412,000.00
YA	KT0101019	0.00	0.00	31,350.00
YA	KT0101025	0.00	0.00	5.000.00
YA	KU0100000	0.00	0.00	9,702.00
YA	KT0201013	0.00	0.00	484,000.00
YA	WB000000	0.00	0.00	87,300.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A002)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	29,800.00
1Y	650102000 (AGR94-002)	0.00	0.00	80,100.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
ΥA	650102000 (OP AGR00-004) AT2540000	0.00	0.00	11,250.00
3T		0.00	0.00	5,000.00
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	40403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
YA	40403309 (OP AGR-00-F-0439)	0.00	0.00	9,029,126.21
WA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
TC	KJ0101030	0.00	0.00	100,000.00
TC	820(01000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	0.00 0.00
	820201000 (OP TSKER4015000019 CR40)	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER401501111J CR40)	0.00	650,000.00	2,515,000.00
TC TC	820201000 (OP TSKER40150TJAAA CR40)	3,200,000.00	3,850,000.00	13,782,000.00
	DP0404012 (OP)	0.00	0.00	
TC	39DP04000	0.00	0.00	957,864,00
TC	39DP04040	0.00	0.00	644,134.00
TC	39DP08170	44,000.00	44,000.00	395,000.00
2Y	600301010 (OP AGR98003105)	0.00	0.00	44,000.00
2Y	600305000 (OP AGR99W001)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR2000W003)	0.00	6,000.00	494,000.00
2Y	600305000 (OP AGR2000W002)	0.00	0.00	20,000.00
2Y	600302000 (OP AGR2000W001)	9,654.06	13,934.06	5,000.00
SA	YN1901000	0.00	0.00	90,000.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	98,652.00
WA	KB0401022	0.00	0.00	25,000.00
WA	FS1000000	0.00	0.00	200,000.00
WA	FS1001100	87,000.00		0.00
WA	FS1001500	46,000.00	347,000.00 46,000.00	347,000.00
WA	FS1005100	100,000.00	100,000.00	46,000.00
	TOTAL	\$60,681,654.06	\$75,891,934.06	100,000.00
	=		Ψ10,031,334.00	\$1,052,636,170.13

<sup>2.</sup> All other terms and conditions of the contract remain unchanged and in full force and effect.

Except as provided herein, all terms and conditions of the docum	ent referenced in Item 9	OA or 10A, as heretofore changed, remains unchanged and in full for	ce and effect.
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or prin	t)
		James W. Skinner, Contracting Officer	
15B. CONTRACTOR/OFFEROR	16C. DATE SIGNED	16B UNITED STATES OF AMERICA	16C. DATE SIGNED
	_	Janes W. Scinner	12/7/00
(Signature of person authorized to sign)	-1	(Signature of Contracting Officer)	1 / -

NSN 7540-01-152-8070 Previous edition unusable STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243

Contract No. DE-AC05-84ER40150 Modification No. A197 Page 2 of 3

1. The amount obligated under this contract is increased by \$7,250,000.00 and is changed from \$1,052,636,170.13 to \$1,059,886,170.13. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Fund Type	B&R Code	Change	FY01	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	0.00	5,520,000.00	16,043,575.00
WA	KB0102011	0.00	39,629,000.00	119,364,411.00
WA	KB0102011 (AIP A001)	0.00	1,275,000.00	4,075,000.00
WA	KB0102011 (GPP)	0.00	300,000.00	1,830,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP A001)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	4,901,000.00	19,669,398.00
WA	KB0102012 (01CG)	0.00	0.00	0.00
WA	KB0102012 (EQUEQU01CG)	0.00	1,018,000.00	1,018,000.00
WA	KB0102012	0.00	17,584,000.00	54,349,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	1,018,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	508,000.00	1,628,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	КТф1ф1014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP\$3\$2000	0.00	0.00	13,000.00
WA	KP1402010	0.00	100,000.00	175,600.00
WA	KP1402010 (EQU)	0.00	0.00	339,400.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	Κνφ1φ1012	0.00	0.00	280,000.00
TF	KV¢101014	0.00	0.00	612,000.00

Contract No. DE-AC05-84ER40150 Modification No. A197 Page 3 of 3

Fund Type	B&R Code	Change	FY01	To Date
YA	KC0204010	0.00	0.00	11,943.00
ΑΥ	KC0702000	0.00	0.00	665,000.00
ΥA	KC0701030	0.00	0.00	5,000.00
Ϋ́A	KT0101017	0.00	0.00	412,000.00
ΥA	KT0101018	0.00	0.00	31,350.00
ΥA	KT0101019	0.00	0.00	5,000.00
ΥA	KT0101025	0.00	0.00	9,702.00
ΥA	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00	87,300.00
YA ·	WB000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1Y	650102000 (OP AGR00-004)	0.00	0.00	11,250.00
ΥA	AT2540000	0.00	0.00	5,000.00
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
ЗТ	40403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
3T	40403309 (OP AGR-00-F-0439)	0.00	0.00	9,029,126.21
YA .	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	0.00	100,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	0.00	(42,733.00)
TC -	820201000 (OP TSKER401501111J CR40)	850,000.00	1,500,000.00	3,365,000.00
TC	820201000 (OP TSKER40150TJAAA CR40)	6,400,000.00	10,250,000.00	20,182,000.00
TC	DP\$404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	0.00	0.00	395,000.00
TC	39DP08170	0.00	44,000.00	44,000.00
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	0.00	494,000.00
2Y	600305000 (OP AGR2000W003)	0.00	6,000.00	20,000.00
2Y	600305000 (OP AGR2000W002)	0.00	0.00	5,000.00
2Y	600 <mark>302000 (OP AGR2000W001)</mark>	0.00	13,934.06	90,000.00
SA	YN 1901000	0.00	0.00	98,652.00
WA	EL1703000(OPFWP #EL17039)	0.00	0:00	25,000.00
WA	KB0401022	0.00	0.00	200,000.00
WA	FS1000000	0.00	0.00	0.00
WA	FS1001100	0.00	347,000.00	347,000.00
WA	FS1001500	0.00	46,000.00	46,000.00 100,000.00
, WA	FS1005100	0.00	100,000.00	
	TOTAL	\$7,250,000.00	\$83,141,934.06	\$1,059,886,170.13

2. All other terms and conditions of the contract remain unchanged and in full force and effect.

AMENI	DMENT ÖF SOLICITATION/	MODIFICATION O	F CONTRACT	1. CC	ONTRACT ID CO	DE	PAGE	OF PAC	
	T/MODIFICAITON NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCH	ASE REC	) NO	5. PROJECT	NO Uf ann	lichle)	3
/ ((1)	A198	See Block 16C		NOC NEC	1. 110.	0.11100201	no. mapp	nobio,	
S. ISSUED BY	CODE	OCC BIOCK 100	7. ADMINISTERED BY (I	f other th	han Item 6)	CODE	1		
U.S. Denartm	nent of Energy	<u> </u>					L		
TJNAF Site C	•								
12000 Jeffers			,						
	rs, VA 23606 ADDRESS OF CONTRACTOR (No., street, cou	nty State and ZIR Code	<u> </u>	1/2/1	9A. AMENDMEN	T OF SOLICIA	TION NO		
	Universities Research Association, Inc.	nty, State and Zir Code,		(X)	JA. AWILINDINIEN	11 01 0021012	mon no,		
	ork Avenue, NW								
Washington,					9B. DATED (SEE	ITEM 11)			
washington,	D.C. 20003								
					10A. MODIFICA	TION OF CON	TRACT/OR	DER NO.	
				1 1	DE-AC05-84E				
		,		x	10B. DATED (SE	EE ITEM 11)			
				1 1			•		
CODE		CILITY CODE	AMENDMENTS OF	ليك	August 3, 198	34			
	II. IHIS IIEN	ONLY APPLIES TO	AMENDIVIEN 15 OF	SULI	CHAHONS				
amendment, ar	13. THIS ITEM O IT MODIFIES	NLY APPLIES TO MO	DIFICATION OF CO	ONTRA IBED	ACTS/ORDE	RS.			
	B. THE ABOVE NUMBERED CONTRACT/O appropriation date, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS	LITEM 14, PURSUANT TO TH	HE AUTHORITY OF FAR 4	VE CHA 3.103(b	NGES (such as c	hanges in payi	ing office,	<del></del>	
V									
X	Increase in obligation of funds in accor  D. OTHER (Specify type of modification ar		bligation or i unus.						
	TANT: Contractor X is not,	is required to sign th					ne issuin	g office	<b>}.</b>
14. DESCRIPT	TION OF AMENDMENT/MODIFICATION (Organ	nized by UCF section heading: SEE FOLLOW	NG PAGES	maul Si	abject matter wil	JOTO ISABIDIO.			
	•								
							l force ====	offact	
	ovided herein, all terms and conditions of the c	locument referenced in Item 9	A or 10A, as heretofore of 16A. NAME AND TITLE	OF CON	, remains unchar	iged and in full	print)	eriect.	
15A. NAME	AND TITLE OF SIGNER (Type or print)		TOM. NAMINE AND THE	J. CO.	TILLOTHIO OFF		#- 1 rate		
			James D. Baxter, Co	ontracti	na Officer				
15P CONTO	ACTOR/OFFEROR	15C, DATE SIGNED	16B. UNDTED STATES C				16C.	DATE SI	GNED
IDD. CUNTR	ROTOTION		Hame.	50 4	50				_/
	(Signature of person authorized to sign)			ture of	Contracting Office	er)	/	2/2	9/9

1. The amount obligated under this contract is increased by \$2,751,500.00 and is changed from \$1,059,886,170.15 to \$1,062,637,670.15. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Fund Type	B&R Code	Change	FY01	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	234,000.00	5,754,000.00	16,277,575.00
WA	KB0102011	1,310,000.00	40,939,000.00	120,674,411.00
WA	KB0102011 (AIP A001)	16,000.00	1,291,000.00	4,091,000.00
WA	KB0102011 (GPP)	0.00	300,000.00	1,830,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP A001)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	4,901,000.00	19,669,398.00
WA	KB0102012 (CLGO)	0.00	0.00	0.00
WA	KB0102012 (0100) KB0102012 (EQUEQU01CG)	0.00	1,018,000.00	1,018,000.00
WA	KB0102012 (EQUEQUOTOG)	780,000.00	18,364,000.00	55,129,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	1,018,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	35,000.00	543,000.00	1,663,000.00
	KC0301030	0.00	0.00	200,000.00
WA		0.00	0.00	653,176.00
YA	392100000 30/200000 (87B303)	0.00	0.00	312,939,618.00
WA	39KB00000 (87R203) 39KB00000 (GPE300)	0.00	0.00	645,000.00
WA WA	35KB01000 (GPE300) 35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
WA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
YA	35KS01000 (Recast Roo 102 EQO)	0.00	0.00	6,861.00
WA	KT0101011	0.00	0.00	49,618.00
4V		0.00	0.00	496,000.00
YA	KT0101012	0.00	0.00	380,000.00
YA	KT0101014	0.00	0.00	33,000.00
4V	KT0101012	0.00	0.00	40,000.00
4V	KT0101018	0.00	0.00	13,000.00
TF	KP0302000	0.00	100,000.00	175,600.00
WA	KP1402010	0.00	0.00	339,400.00
WA	KP1402010 (EQU)	0.00	0.00	4,000.00
WA	KS0101000	0.00	0.00	5,000.00
WA	KS0102211	0.00	0.00	280,000.00
TF	KV0101012	0.00	0.00	612,000.00
TF	KV0101014	0.00	0.00	012,000.00

Fund Type	B&R Code	Change	FY01	_ To Date
YA	KC0204010			TO Date
YA	KC0702000	0.00	0.00	11,943.00
YA	KC0701030	0.00	0.00	665,000.00
YA	KT0101017	0.00	0.00	5,000.00
YA	KT0101018	0.00	0.00	412,000.00
YA	KT0101019	0.00	0.00	31,350.00
YA	KT0101025	0.00	0.00	5,000.00
YA	KU0100000	0.00	0.00	9,702.00
YA	KT0201013	0.00	0.00	484,000.00
YA	WB000000	0.00	0.00	87,300.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A002)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
Ϋ́A	650102000 (OP AGR00-004)	0.00	0.00	11,250.00
3T	AT2540000	0.00	0.00	5,000.00
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
	40403309 (OP AGR27199MPHS058)	0.00	0.00	
3T	40403309 (OP AGR-00-F-0439)	0.00	0.00	12,135.92
YA	KJ0102000	0.00	0.00	9,029,126.21
WA	KJ0200000	0.00	0.00	420,346.00
WA	KJ0101030	0.00	0.00	50,909.00
TC	820101000 (OP)	0.00	0.00	100,000.00
TC	820201000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP TSKER4015000019)	0.00		0.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	0.00	0.00
TC	820201000 (OP TSKER401501111J CR40)	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER40150TJAAA CR40)	0.00	1,500,000.00	3,365,000.00
TC	DP0404012 (OP)	0.00	10,250,000.00	20,182,000.00
TC	39DP04000 ` ′	0.00	0.00	957,864.00
TC	39DP04040	0.00	0.00	644,134.00
TC	39DP08170		0.00	395,000.00
2Y	600301010 (OP AGR98003105)	116,000.00	160,000.00	160,000.00
2Y	600305000 (OP AGR99W001)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR2000W003)	0.00	0.00	494,000.00
2Y	600305000 (OP AGR2000W002)	0.00	6,000.00	20,000.00
2Y	600302000 (OP AGR2000W002)	0.00	0.00	5,000.00
SA	YN1901000	0.00	13,934.06	90,000.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	98,652.00
WA	KB0401022	0.00	0.00	25,000.00
WA	FS1000000	0.00	0.00	200,000.00
WA	FS1000000 FS1001100	0.00	0.00	0.00
WA	FS1001100 FS1001500	0.00	347,000.00	347,000.00
		0.00	46,000.00	46,000.00
WA	FS1005100	0.00	100,000.00	100,000.00
FG FC	GD0703000	145,500.00	145,500.00	145,500.00
FG	GD0703000 (EQU)	115,000.00	115,000.00	115,000.00
	TOTAL	\$2,751,500.00	\$85,893,434.06	\$1,062,637,670.13

<sup>2.</sup> All other terms and conditions of the contract remain unchanged and in full force and effect.

Performance Level (S)	Adjectival Rating	% of Assigned Points†
< 0.1 to 0.01	Outstanding	90 to 100
0.5 to 0.1	Excellent	80 to <90
1.0  to > 0.5	Good	70 to <80
5.0  to > 1.0	Marginal	60 to <70
10.0 to > 5.0	Unsatisfactory (Poor)	50 to <60
> 10.0	Unsatisfactory (Failing)	0 to <50

<sup>&</sup>lt;sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed except performance levels >10.0 are scored by logarithmic extrapolation from Marginal and Unsatisfactory (Poor).

5.2b Number of reportable and recordable exposures to hazardous substances as off-normal occurrences, plus 5 times this number for unusual occurrences. [4 points]

#### Introduction:

Goal: To have no exposures above an OSHA action level.

#### Qualifiers:

- Includes everyone on site (including adjacent space leased by SURA)
- ORPS thresholds are as defined in order 232.1, dated 9/25/95
- No more than three exposures are counted in a single incident

Data collection: Industrial Hygiene Staff report the information to EH&S Reporting

Data evaluation: EH&S Reporting

Performance measure custodian: EH&S Reporting

Performance measurement validation: Relevant information is presently collected

Scoring: Based on exposures. Values assigned as follows:

- 0.1 for an exposure above an OSHA action level, but less than the ORPS off-normal threshold (2 times the OSHA permissible exposure level)
- 1.0 for an exposure above the ORPS off-normal threshold, but below the unusual occurrence threshold
- 5.0 for an exposure above the unusual occurrence threshold (5 times the OSHA permissible exposure level)

Performance Level is given by the sum (S) of these values

Performance Level (S)	Adjectival Rating	% of Assigned Points†
0.5 to 0.0	Outstanding	90 to 100
1.0 to > 0.5	Excellent	80 to <90
4 to > 1.0	Good	70 to <80
16 to > 4	Marginal	60 to <70
35 to > 16	Unsatisfactory (Poor)	50 to <60
> 35	Unsatisfactory (Failing)	0 to <50

<sup>&</sup>lt;sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed except performance levels >35 are scored by logarithmic extrapolation from Marginal and Unsatisfactory (Poor).

# JEFFERSON LAB FY2001 APPENDIX B

## JEFFERSON LAB APPENDIX B TABLE OF CONTENTS

PE	RFORMANCE EVALUATION OVERVIEW	1
Sc	ORING METHODOLOGY	4
Co	ONTRACT PERFORMANCE ANNUAL APPRAISAL TIMELINE	6
Та	BLE B.1: PERFORMANCE OBJECTIVES AND THEIR KEY INDICATORS	7
1.	OUTSTANDING SCIENCE AND TECHNOLOGY  1A. OVERVIEW	
2.	RELIABLE OPERATIONS  2A. OVERVIEW	
3.	PRODUCTION OF SCIENTIFIC AND TECHNICAL MANPOWER  3A. OVERVIEW	
4.	CORPORATE CITIZENSHIP  4A. OVERVIEW	
5.	QUALITY PERFORMANCE IN ENVIRONMENT, HEALTH, AND SAFETY 5A. OVERVIEW	
6.	QUALITY OF BUSINESS AND ADMINISTRATIVE PRACTICES 6A. OVERVIEW	
7.	RESPONSIBLE INSTITUTIONAL MANAGEMENT OVERVIEW 7A. OVERVIEW	
8.	SPALLATION NEUTRON SOURCE  8A. OVERVIEW	57

## Performance Evaluation by Performance-Based Metrics Overview

#### General

This Appendix sets forth the basis upon which an evaluation of the performance of the Thomas Jefferson National Accelerator Facility (otherwise known as "Jefferson Lab;" formerly CEBAF) performance will be based as required by contract Article 6 (Use of Objective Standards of Performance, Self Assessment and Performance Evaluation) and Article 7 (Performance Measure Review) of the contract. The evaluation procedure described below utilizes a set of "key indicators" which will broadly measure the laboratory's performance in eight critical areas. Associated with most "key indicators" (both peer reviews and performance metrics) is a set of "secondary indicators" which will measure the laboratory's performance in a more detailed way and extend the validity of each respective "key indicator." As it relates to Article 6 of the contract and the peer review process for the Science and Technology, Business and Administrative Practices and Responsible Institutional Management sections of the Performance Evaluation Plan, the parties agree that: (i) the panel will be selected by mutual agreement; and (ii) DOE will concur with the official charge to the panel prior to issuance by SURA.

Table B.1, Performance Objectives and Their Key Indicators, shows the eight performance objectives of this contract and their corresponding key indicators. Following this table are eight sections elaborating on each key indicator and listing the associated secondary indicators with established performance goals, where appropriate. A system for scoring performance in the eight categories and for integrating these scores into an overall evaluation rating for each performance period is provided under the subheading "Scoring Methodology." The parties agree to adhere to this system in arriving at the overall evaluation of the laboratory's performance against these measures. The schedule for performing the Laboratory evaluation is provided under the subheading "Appendix B Annual Appraisal Timeline." It is the intent of the parties to strictly adhere to this schedule although either party may request a revision to the proposed schedule.

For FY01, performance measures have been established in accordance with the annual reassessment process outlined in the paragraph entitled "Periodic Reassessment" and the FY00 results. The FY01 performance goals have been set based on: (i) the outcome of the FY00 performance measures in relation to the FY00 performance goals; and, (ii) other pertinent data.

#### **Goal Setting**

The primary considerations for selecting performance measures and setting goals at Jefferson Lab are:

• Performance measures should provide accurate, valid measures of performance in areas of importance to DOE and Laboratory management.

- The total set of measures should reflect priorities of DOE and Laboratory management and a proper balance of cost-benefit and return-on-investment.
- Setting goals that optimize the overall Laboratory mission frequently yields a more
  desirable result than goals which stress maximum quantitative performance in narrow
  areas. For instance, simply pushing for maximum accelerator availability might penalize
  highly specialized or difficult experiments with high scientific merit or impede accelerator
  development. In other areas, pushing for unreasonably high quantitative goals might
  divert limited resources from other more mission-oriented activities with little or no
  benefit.
- The broader the base of comparison of Jefferson Lab's performance with similar institutions, the greater the possibility of learning improved ways of performing activities and how important it is to perform those activities.
- Comparison with other facilities is most effective when objectives, constraints and hazards at the facilities are similar, or normalization is relatively simple.
- The performance measures, the comparison base, and the goals should be selected keeping in mind the ease of obtaining current comparison data.

Given these considerations, the DOE and SURA have agreed that the primary use of performance measures will be to compare the Laboratory's performance against the mission objectives of the Laboratory, taking into account the maturity of its various programs (e.g., the criteria to achieve an "outstanding" rating for a mature program would be different from that for a young program). The allocation of points among the performance objective categories is the first indication of this value judgment. The DOE/Laboratory Performance Measurement Teams were advised to select as broad a comparison area as practical in order to maximize the opportunity to improve systems and processes, but to define the performance measures and set the goals with the intent of enhancing the mission of the Jefferson Lab. While this approach requires a considerable exercise of judgment and somewhat limits a direct comparison with other facilities based on score, it presents the best opportunity to improve the overall performance of the Laboratory. This approach results in a mixture of broad performance measures where Laboratory performance can be quantitatively compared with other DOE and/or industrial facilities (such as property loss ratios), and measures that are much more unique to the mission of this Laboratory (such as Reliable Operations, Production of Scientific and Technical Manpower and Technology Transfer). A practice used extensively at Jefferson Lab that combines broad measures with measures very closely tailored to the mission of the Laboratory is the Peer Review concept. Depending on the function or category under review, technical and/or management personnel with similar responsibilities at other facilities review the Laboratory's performance as prescribed in a carefully constructed charter and arrive at a score or adjectival rating for that function or category. This practice makes available the experience and expertise of nationally recognized experts in various fields and provides maximum opportunity for knowledgeable feedback leading to performance improvement.

#### Performance Report

The Contractor will report on the results of its performance as defined by Appendix B at the end of each fiscal year. This Performance Report should include for each performance category, in addition to actual performance metric scores and/or peer review results, an overview self-assessment which includes: a brief description of major achievements; significant strengths and weaknesses; the status of responses to recommendations from the Peer Reviews, an assessment of whether the performance measures were valid indicators of performance; other lessons learned; principal areas of emphasis for improvement for the following fiscal year; and any recommended changes in performance measures or goals for the following fiscal year. A discussion of the Laboratory's overall performance and the major areas across the entire Lab that SURA perceives as the most important focus areas for the upcoming performance period will also be included.

The Department will use the Contractor's Performance Report along with other inputs to evaluate the Contractor's overall performance for each evaluation period. These other inputs include observations and results of inspections conducted by the Site Office staff, and programmatic/functional appraisals and reviews coordinated by the Site Office. As a means of incorporating these additional considerations, the parties have agreed that the Contracting Officer will develop an overlay performance report which will supplement the product of the performance measure process. This report will capture the highlights of the DOE Site Office observations/reviews, results of DOE appraisals, as well as other important information (including mitigating factors or events that may be outside the control of the contractor) that will be used to balance the overall performance assessment for the year. This overlay report will include a discussion of performance against regulatory and contract requirements that were not defined in terms of performance measures. The parties agree that the results from these assessment inputs could change the category rating and/or overall performance rating (up or down) by as much as one performance level.

#### Periodic Reassessment

As described in Article 6, the parties also agree to a reassessment of these performance measures prior to the beginning of each evaluation period. In particular, the parties agree to:

- 1. Assess the validity of each respective indicator as an accurate and meaningful reflector of performance (using the detailed secondary indicators and other criteria) and to replace them with more appropriate indicators if necessary;
- 2. Consider adding to or subtracting from the complement of secondary indicators in order to more meaningfully and accurately track vital performance objectives or to correct deficiencies in the more global key indicators; and
- 3. Consider adding or subtracting key indicators or secondary indicators as appropriate in response to the evolving requirements of DOE; in particular, both parties undertake to replace DOE Directives whenever feasible by performance metrics.

#### **Scoring Methodology**

The parties have agreed to the following scoring methodology:

A. <u>POINT ALLOCATION</u>: A 1030-point scale will be distributed among the eight performance objective categories as follows:

1.	Outstanding Science and Technology	300 points
2.	Reliable Operations	250 points
3.	Production of Scientific and Technical Manpower	75 points
4.	Corporate Citizenship	75 points
5.	Quality Performance in EH&S	100 points
6.	Business and Administrative Practices	100 points
7.	Responsible Institutional Management	100 points
8.	Spallation Neutron Source	30 points

Within each of the eight performance objective categories, the individual points have been allocated between the key indicator and the secondary indicators.

B. <u>POINT SCALE</u>: A grading scale will be used for rating each category and the overall performance evaluation as follows:

Adjectival Rating	% of Points
Outstanding	90% to 100%
Excellent	80% to < 90%
Good	70% to $< 80%$
Marginal	60% to $< 70%$
Unsatisfactory (Poor)	50% to $< 60%$
Unsatisfactory (Failing)	<50%

After applying the appropriate percentage to the points assigned for each indicator, accuracy at the one decimal point level will be retained.

- C. RATING EACH CATEGORY: The following weighted average approach will be used to rate each of the eight performance objective categories:
  - 1. For each performance measure, multiply performance percent achieved times the assigned points to arrive at the awarded points.
  - 2. Sum the assigned points and sum the awarded points for all performance measures to arrive at a total for each (i.e., total assigned points and total awarded points).
  - 3. Divide the total awarded points for the category by the total assigned points for the category and convert to a percentage.

4. Arrive at an overall adjectival rating for the category by using the point scale in paragraph (B) above.

In years where a new indicator which requires baselining might be added to the set, the Laboratory evaluation score will be based on paragraph (D) below.

- D. OVERALL PERFORMANCE EVALUATION: The following methodology will be used to determine the overall performance rating:
  - 1. Sum the assigned points and sum the awarded points for each performance measure being scored in the performance period. (For odd years, the same score achieved in Responsible Institutional Management from the prior year will be carried forward and included in the performance evaluation calculation).
  - 2. Divide the awarded points by the assigned points. This percentage of 1030 is the laboratory's overall score for the evaluation period. This percentage is also used in Step #5, Section C, to provide a score for the baselined areas.
  - 3. Arrive at the overall adjectival performance rating for the contract in accordance with Section B, above, on the point scale.
  - 4. Incorporate the results of DOE Site Office overlay performance report as described in the paragraph entitled "Performance Report" on p.3 of this Appendix.

### **Contract Performance Annual Appraisal Timeline**

DATE	ELEMENT
7/1/FY-1	Functional teams from DOE and SURA develop Performance Metrics.
9/1/FY-1	Performance Metrics due to the DOE Site Office Manager.
10/1/FY	DOE transmits final Performance Metrics to SURA.
4/15/FY	DOE performs mid-year status review.
9/30/FY	Evaluation period ends.
10/31/FY+1	SURA submits Performance Report
11/15/FY+1	DOE develops draft evaluation and transmits to SURA.
12/1/FY+1	SURA submits comments on draft evaluation.
12/15/FY+1	DOE transmits final report to SURA.

Table B.1: Performance Objectives and Their Key Indicators

Objective	Key Indicator	Points
1. Outstanding Science and Technology	Peer Review	300
2. Reliable Operations	Delivered Physics Research Operations	250
3. Production of Scientific and Technical Manpower	<ul> <li>Number of Student Years on Jefferson Lab-Related Research Activities</li> <li>Total Number of Advanced Degrees Based on Jefferson Lab Research</li> </ul>	75
4. Corporate Citizenship	<ul> <li>Public Participation</li> <li>Non-DOE Investment in Jefferson Lab Initiatives</li> </ul>	75
5. Quality Performance in Environment, Health & Safety	Cost of Injuries     Environmental Permit Exceedences	100
6. Quality of Business and Administrative Practices	Peer Review	100
7. Responsible Institutional  Management	Peer Review	100
8. Spallation Neutron Source	Schedule Performance	30
		1030

## 1. Outstanding Science and Technology 1A. Overview

Objective: To produce outstanding science and technology.

#### Key Indicator (300 points):

#### 1.0 Peer Review

General Charge to the Peer Review Panel: Using inputs from other science and technology program managers who sponsor significant work at Jefferson Lab and after consultation with SURA representatives, the DOE Division of Nuclear Physics (DNP) will issue the charge to the panel. Principally the charge will be to evaluate Jefferson Lab's contribution to the goals of the National Nuclear Physics Program, to rate the Jefferson Lab nuclear physics program relative to that of other international laboratories, and to evaluate the likely contributions of the Laboratory's proposed future program to this field and to science in general. The panel also would be asked to assess the effectiveness of laboratory operations and the overall scientific productivity of the laboratory.

As part of this charge, the panel would be specifically asked to examine the Laboratory's Advanced Accelerator Research and Development efforts and assess whether they are properly focused to support current and future Laboratory and national goals. The charge to the panel also would include a request that it evaluate the quality of the Laboratory's applied science and technology programs, and assess whether the current efforts directed toward them by the Laboratory are justified and whether the planned future direction and magnitude of these efforts appear appropriate relative to the primary mission of the Laboratory.

In addition, the panel would be requested to evaluate Laboratory management's use of discretion (where such discretion exists) in allocating resources among Laboratory science and technology priorities and whether prudent judgment was exercised in making such allocations.

More detailed guidance will be developed based on special circumstances at the time of the review.

Frequency and Duration: Annually, two days plus one day for report writing and closeout.

<u>Panel Composition</u>: A cross-cutting panel (including a chairperson) of internationally recognized scientists and engineers will be appointed by the DNP following consultation with other program managers who fund significant program activities at the Laboratory and with SURA.

Prior to the selection of the panel members, the composition of the panel may be adjusted, by mutual agreement of SURA and DOE, to match the programs and activities of the Laboratory and the special circumstances to be addressed by the review.

Conduct of the Review: The Director of DNP will select a chairperson (in consultation with SURA) and develop an agenda for the review based on the charge to the panel (in consultation with the chairperson and SURA).

In addition to the panelists appointed by the DNP, the Director of DNP and/or others whom he may designate will also participate in the review as a member of the panel. Consistent with the principles of the DOE+SURA partnership that are expressed in this contract, a representative selected by SURA will observe the deliberations of the panel and participate in panel discussions, including the executive sessions. This will assist SURA in performing its corporate oversight of the Laboratory.

Each panel member will be asked to submit individual reports to the chairperson following the review. The chairperson will submit a report to the Director of DNP that provides his/her personal assessment of the review and the review results and transmits the individual reports from the other panel members. The Director of DNP will make the reports available to SURA.

## 1B. Performance Evaluation Plan

#### Introduction:

It is widely accepted that while various numerical indicators can be useful as inputs, the overall scientific and technical quality of a research institution is best judged by peer review. Among the more reliable criteria on which the judgment of the Peer Review Panel should be based are:

- 1. Quality of the research program as evidenced by seminal experimental or theoretical results.
- 2. Effectiveness of operations (including an assessment from users) in support of the research
- 3. Major experimental or technological innovations resulting from work at Jefferson Lab.
- 4. Citations of papers or articles based on research carried out at Jefferson Lab and invited presentations at major international conferences based on Jefferson Lab results.

Other criteria deemed to be relevant also will be examined.

#### 1.0 Peer Review

Scoring: Based on the individual reports of the panel members (including the chairperson), his own assessment, and following consultation with SURA, the Director of the Division of Nuclear Physics will assign an adjectival rating to the performance of the laboratory in producing Outstanding Science and Technology. A percentage of Key Indicator points within the range associated with the assigned rating will be awarded in accordance with the following table.

Adjectival Rating	% of Assigned Points
Outstanding	90 to 100
Excellent	80 to < 90
Good	70 to < 80
Marginal	60 to < 70
Unsatisfactory (Poor)	50 to < 60
Unsatisfactory (Failing)	<50

## 2. Reliable Operations

## 2A. Overview

Objective: Achieve reliable performance of the accelerator and detectors at required specifications to ensure the scientific success of the Laboratory.

## Key Indicator (150 points):

2.0 Delivered physics research operations, as determined by the number of hours of simultaneous availability of the beams and the experimental equipment delivered.

## Secondary Indicators (100 points):

- 2.1 Beam availability, as defined by the ratio of the time the beam is useful for the intended research program to the time it is scheduled for use during that period. [25 points].
- 2.2 Experimental equipment availability, as measured by the ratio of the time the equipment is operational at its design specifications in a particular configuration to the time it is scheduled for use in that configuration. [25 points]
- 2.3 The effectiveness of the scheduling process, as determined by the time that was scheduled to have elapsed between the publication of a firm accelerator schedule and the experiment's scheduled start date divided by the actual time between publication of a firm accelerator schedule and the date an experiment begins taking data. [25 points]
- 2.4 Overall operations effectiveness, defined as the ratio of the total time the accelerator is operated for physics (in weeks) to the total accelerator operations (in weeks) that was identified as the goal for the year during negotiations of the laboratory's operations budget. [25 points]

## 2B. Performance Evaluation Plan

#### Introduction:

Quantitative evaluation of performance in this area is measured against peak performance goals to be declared at the beginning of each evaluation period. A peak performance goal is one that corresponds to the maximum desirable performance in each area given anticipated technical and fiscal constraints. The Laboratory's long range "asymptotic" peak performance goals for each of the performance measures have been set by a joint laboratory-DOE team and will be reviewed by the team on an annual basis. These goals are listed in Table 2.1.

Table 2.1: Long Range Peak Performance Goals

Performance Measure	Indicator	Total Points Assigned	Description	Asymptotic Peak Performance Goal FY2001+
2.0	Delivered Physics Research Operations	150	Hours of physics research operations for which both beam and experimental equipment are simultaneously available	100% of research operations goal
2.1	Beam Availability	25	Percent of the scheduled time for which the beam is useful	80%
2.2	Experimental Equipment Availability	25	Percent of the scheduled time that the experimental equipment is operational	80%
2.3	Effectiveness of the Scheduling Process	25	How closely an experiment actually starts taking data relative to the scheduled start date	100%
2.4	Overall Operations Effectiveness	25	Percent of planned weeks of operations for physics that is delivered	100%

For secondary indicators 2.3 and 2.4, these peak performance goals apply immediately. For secondary indicators 2.1 and 2.2, the annual peak performance goals should reflect the anticipated turn-on curve for operations. Since the peak performance goal for the key indicator 2.0 is a function of secondary indicators 2.1 and 2.2, it too will reflect the anticipated turn-on curve for operations. Thus, the peak performance goals are adjusted as follows:

Table 2.2: Turn-On Peak Performance Goals\* (PPG) for Indicators 2.1 and 2.2

Fiscal Year	Peak Performance Goals for Beam Availability (2.1)  A <sub>accel-goal</sub> (See note below for adjustments)	Peak Performance Goals for Individual Halls included in the Base Experimental Equipment Availability Metric (2.2) A <sub>i-goal</sub>
FY98	78%	78% (Hall C) 70% (Hall A) 55% (Hall B)
FY99	80%	80% (Hall C) 78% (Hall A) 70% (Hall B)
FY00	80%	80% (Halls A, C) 78% (Hall B)
+FY01-beyond	80%	80% (all Halls)

<sup>\*</sup> before any adjustment for planned new capabilities

Once schedules are established for the three Halls in each year, the Key Indicator 2.0 peak performance goal will be determined by the product of the scheduled hours of beam operations for research, the hall and beam availabilities, and the multiplicity goal (# of halls that are to be operating simultaneously, on average). As the formula for determining the Key Indicator depends on quantities defined for the secondary indicators, we postpone a discussion of the key indicator until later in this section.

The nominal goals for the beam availability peak performance indicator 2.1 and for the individual hall experimental equipment availabilities that are folded together for the experimental equipment availability peak performance indicator 2.2 follow the anticipated curve for the accelerator learning curve (55% in the first year, 70% in the second, 78% in the third, and 80% in the fourth year and beyond). This same learning curve will be applied in the future whenever the accelerator or one of the experimental halls undergoes a major upgrade.

In addition, whenever a significant new capability is being commissioned (e.g., a substantial energy upgrade for the accelerator or a substantial addition to the hall base equipment) then the availability goal for the relevant capability shall be reduced by 10% for one quarter (corresponding to a reduction of 2.5% in the year's PPG for availability). The Lab and the DOE Site Office must both agree on any such reduction in the availability goal as part of the review of the goals at the beginning of the fiscal year. If the development of the new capability is later rescheduled and does not occur within the performance period, the reduction in the availability goal will be rescinded.

In FY01, we do not anticipate any substantial upgrade for the accelerator. However, it is planned to run for 19.9 weeks at the highest energy that the accelerator is capable of providing physics quality beam. This is defined as operation with less than 10% availability reduction due to RF trips. We therefore propose that the availability metric for 2001 be reduced by 5% for operation of the accelerator at a beam energy per pass greater than 1.1 GeV, equivalent to 5-pass energy above 5.5 GeV. This translates into an availability goal of 2001 of 80% - (19.9/31\*5) = 76.8%. In addition, uncertainty about how and when the present klystron issue is resolved may result in a further reduction of the availability goal by about 3 percentage points (i.e., from 76.8% to 73.8%).

Two of the three experimental halls have major installation work planned in FY01. In Hall C, the second  $G_n^E$  experiment will be installed, and in Hall B, the polarized photon source will be installed. Consequently, the hall availability goals for Hall C and Hall B should each be reduced by 2.5%. These adjustments lead to the values listed in Table 2.3 below. For FY01, the peak performance goals are:

Table 2.3: Peak Performance Goals for FY01

Indicator	Description	FY01 Peak Performance Goal
2.0	Hours of physics research operations for which both beam and experimental equipment are simultaneously available as scheduled	Calculate using the equation below
2.1	Percent of the scheduled time for which the beam is useful	76.8%*
2.2	Percent of the scheduled time that the experimental equipment is operational	Calculate using the equation below and the individual hall availability goals:  77.5% Hall C (E <sub>c-goal</sub> )  80% Hall A (E <sub>a-goal</sub> )  77.5% Hall B (E <sub>b-goal</sub> )
2.3	How closely an experiment actually starts taking data relative to the scheduled start date	100%
2.4	Percent of the planned weeks of operations for physics that is delivered	100%

<sup>\*</sup> This goal may be further reduced by 3 points, depending on resolution of the klystron problem.

For each indicator, the relationship between the percent of peak performance goal that is achieved and the percent of the maximum possible points for that indicator to be awarded will be:

- If actual performance is at least 50% of agreed peak performance goal:
   % of points awarded = % of peak performance goal achieved (no incremental points are awarded if the performance exceeds the peak performance goal).
- 2. If actual performance is less than 50% of agreed peak performance goal:
  % of points awarded = 2 \* (% of peak performance goal achieved 25%)
- If actual performance is less than 25% of agreed peak performance goal:
   No points awarded.

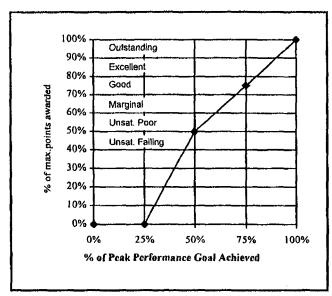


Fig. 2.1: Scoring as a % of Peak Performance Goal Achieved

To precisely quantify the peak performance goals for each performance metric, we begin by making the following definitions:

Table 2.4: Definitions

Quantity	Definition	
Si	The total number of hours assigned in the published schedule for experiments in Hall i	
B <sub>i</sub>	The beam availability for experiments in Hall i, as determined by the criteria defined below	
$S_{ad}$	The total number of hours of accelerator development activities scheduled for the accelerator	
$\mathbf{B}_{ad}$	The beam availability for accelerator development activities as determined by criteria defined below	
Ei	The experimental equipment availability for experiments in Hall i as determined by the criteria defined below	
D <sub>i</sub>	The fraction of the total time scheduled for experiments in Hall i when both the beam and experimental equipment are available and being used to carry out the planned scientific program	
$D_{ad}$	The fraction of the total time scheduled for accelerator development activities that both the beam and the relevant test equipment are available and being used to carry out the planned development activities	
t <sub>bs</sub>	The date on which a firm beam schedule is released	
t <sub>ss</sub>	The date on which an experiment is scheduled to begin taking data as published in the firm beam schedule	
t <sub>sa</sub>	The actual date on which an experiment begins taking data	
S <sub>beam</sub>	The total number of hours in the published schedule that the accelerator is to provide beam for physics experiments	
$S_{j}$	The total number of hours assigned to the j <sup>th</sup> experiment in the published schedule	

## Details on the definitions of these quantities:

 $B_i$ , the beam availability for Hall i (where i = a, b, or c), is defined as the ratio of the time the beam is available for delivery to that hall to the time it is scheduled for delivery to that hall. The beam shall be considered as available for the experimental program when the beam quality deliverable to an experimental target lies within the nominal specifications and remains stable within defined limits over a thirty minute running period (see Table 2.5). Different specifications and stability limits may be used for specific experiments if agreed to in advance by both the Accelerator Division and the experiment spokesperson. Specifications for beam availability for accelerator development activities shall be defined in advance by the spokesperson for the development activity and the Accelerator Division.

 $E_i$ , the availability of the experimental equipment for hall i (where i = a, b, or c), is defined as the ratio of the time the equipment for that hall is operational at its design specifications in a particular configuration to the time it is scheduled for use in that configuration. The metric will initially consider only the "base" equipment as defined by the Jefferson Lab construction project. As new equipment is added to the base equipment (or as major new experimental apparatus is developed) it shall be treated separately following the availability goals established for the base equipment during its first two years of operation, and treated as part of the base equipment thereafter.

 $B_{ad}$ , the beam availability for accelerator development activities, is defined as the ratio of the time the beam is useful for these development activities to the time it is scheduled for such activities. Specifications for beam availability for accelerator development activities shall be defined in advance by mutual agreement between the spokesperson for the development activity and the Accelerator Division.

Table 2.5: Beam Requirements - General Characteristics

Parameter	Nominal Value and Range	Stability (for hours)
Beam Emittance: rms spot size for	Hall A: $20  \mu \text{m} < \sigma_{\text{x}} < 50  \mu \text{m}$	25% of value
achromatic beam tune (10)	20 μm < σ <sub>y</sub> < 50 μm	
	Hall B: $20  \mu \text{m} < \sigma_x < 70  \mu \text{m}$	
	$20  \mu m < \sigma_v < 70  \mu m$	
	Hall C: $50  \mu \text{m} < \sigma_x < 100  \mu \text{m}$	
	$_{\rm 50~\mu m}$ < $\sigma_{\rm v}$ < 100 μm	
Beam Emittance: angular divergence (10)	$\sigma_{x'}$ , $\sigma_{y'}$ < 100 µr	25% of value
Beam position	0 μm (relative to optic axis)	rms deviation is less than 25% of the beam spot's rms radius
Beam direction	(A) (-1-4i	rms deviation is less than 25% of the
beam direction	0 μr (relative to optic axis)	beam angular divergence rms 1/2
		cone angle
Energy (average)	0.5 - 4 GeV	Hall A: < 3 E-4
		Hall B: < 1 E-3
		Hall C: < 1 E-3
		(also < 3 E-3 over days for all)
Energy Spectrum (10)	Hall A: $\sigma_E/E < 5$ E-5	25% of value
	Hall B: $\sigma_{E}/E < 4.0 E-4$	
	Hall C: $\sigma_E/E < 2.5 E-4$	
Background (Beam Halo)	< 1E-6 of total current at 5σ (with	any value within nominal range
	diagnostic to be provided by the	
	experiment)	
Current (dc average)	Hall A: 40 nA - 180 μA	within ± 10% of value requested by
(Note: any single hall is restricted to <120	Hall B: 1 nA – 10 μA	experimenter
μA unless it has exclusive use of the beam,	Hall C: 40 nA – 180 μA	
and total current delivered to all 3 halls		
must be <180 μA)		
Polarization (current range to be	>35% (from bulk GaAs, with expected	± 10% of value
determined by agreement between Physics	currents of order 100 µA)	
and Accelerator Divisions)	>75% (from strained cathodes, with	
77.00	currents of order 30 μA expected)	
Effective Duty Factor	>90% (lower values may be negotiated	any value within the nominal range
Description Description	with the Accelerator Division)	(90%-100%)
Proper Impingement on Beam Dump	rastered beam spot size > 100 μm	1
(raster)	stability of position < 1 cm (not	
	including rastering)	

## Scoring:

2.0 Delivered Physics Research Operations, S<sub>physics-research</sub>, as determined by the number of hours of simultaneous availability of the beam and the experimental equipment. [150 points]

FY01 Peak Performance Goal (PPG):  $S_{physics-research-goal} = S_{beam} A_{sim-goal} M_{goal}$  (hours) Where  $A_{sim-goal} = A_{accel-goal} E_{t-goal}$ , the product of the goals for accelerator and experiment equipment availability, and  $M_{goal}$  is the goal for hall multiplicity, i.e., the average number of halls that are running any time the accelerator beam is available for physics. The product  $S_{beam} A_{sim-goal}$ 

gives the number of hours of useful physics running that the accelerator and experimental equipment would deliver if both beam and experimental equipment availability goals were met (and assuming that there are no correlations in the causes of down-time for the accelerator and the experimental equipment). M<sub>goal</sub> is nominally 2.0, reflecting our goal of running, on average, two halls simultaneously. The value of 2.0 is mainly based on a realistic assessment of the achievable multiplicity given the level of technical support available at the laboratory to assist in mounting and running experiments and our typical planning for major experiment installations each year. The multiplicity goal may be adjusted annually as part of the negotiations between DOE and laboratory management on the year's operating budget and staff levels.

In addition, M<sub>goal</sub> will be reduced in any year that one or more of the halls are planned to be "down" for an unusual length, e.g., for a major upgrade of the apparatus or the installation of major new apparatus. There are no such reductions anticipated for FY01.

This is to be compared with the actual physics research operations, given by:

$$S_{physics-research} = S_aD_a + S_bD_b + S_cD_c$$
 (hours)

If actual performance is at least 50% of agreed PPG, then % of points awarded = % of PPG achieved. No points are awarded if actual performance is less than 25% of agreed PPG.

Performance Level	Adjectival Rating	% of Assigned Points
90% to 100% of PPG	Outstanding	90 to 100
80% to < 90% of PPG	Excellent	80 to < 90
70% to < 80% of PPG	Good	70 to < 80
60% to < 70% of PPG	Marginal	60 to < 70
50% to < 60% of PPG	Unsatisfactory (Poor)	50 to < 60
25% to < 50% of PPG	Unsatisfactory (Failing)	2 * (% of PPG achieved - 25%)

2.1 The total beam availability, B<sub>t</sub>, is the weighted average over the experimental and beam development activities scheduled of the beam availabilities for the individual experimental halls and for accelerator development activities. [25 points]

FY01 Peak Performance Goal (PPG): 76.8%

$$B_t = (B_a S_a + B_b S_b + B_c S_c + B_{ad} S_{ad})/(S_a + S_b + S_c + S_{ad})$$

If actual performance (B<sub>1</sub>) is at least 50% of agreed PPG, then % of points awarded = % of PPG achieved. No points are awarded if actual performance is less than 25% of agreed PPG.

Performance Level	Adjectival Rating	% of Assigned Points
90% to 100% of PPG	Outstanding	90 to 100
80% to < 90% of PPG	Excellent	80 to < 90
70% to < 80% of PPG	Good	70 to < 80
60% to < 70% of PPG	Marginal	60 to < 70
50% to < 60% of PPG	Unsatisfactory (Poor)	50 to < 60
25% to < 50% of PPG	Unsatisfactory (Failing)	2 * (% of PPG achieved - 25%)

2.2 The total availability of the base experimental equipment, E<sub>t</sub>, is the average over all halls scheduled of the beam availabilities for the individual halls. [25 points]

## FY01 Peak Performance Goal (PPG):

$$E_{t-goal} = (E_{a-goal}S_a + E_{b-goal}S_b + E_{c-goal}S_c)/(S_a + S_b + S_c)$$

and is calculated based on the published schedule for hall operations and the goals,  $E_{i-goal}$ , for the individual hall availabilities as listed in Table 2.3 above.

The actual availability to be compared with the goal above is:

$$E_t = (E_a S_a + E_b S_b + E_c S_c)/(S_a + S_b + S_c)$$

If actual performance ( $E_t$ ) is at least 50% of agreed PPG ( $E_{t-goal}$ ), then % of points awarded = % of PPG achieved. No points are awarded if actual performance is less than 25% of agreed PPG.

Performance Level	Adjectival Rating	% of Assigned Points
90% to 100% of PPG	Outstanding	90 to 100
80% to < 90% of PPG	Excellent	80 to < 90
70% to < 80% of PPG	Good	70 to < 80
60% to < 70% of PPG	Marginal	60 to < 70
50% to < 60% of PPG	Unsatisfactory (Poor)	50 to < 60
25% to < 50% of PPG	Unsatisfactory (Failing)	2 * (% of PPG achieved - 25%)

2.3 The effectiveness of the scheduling process,  $\varepsilon_{\text{sched}}$ , is the average performance with respect to start times for all experiments on the published, "firm" schedule, weighted according to the scheduled duration,  $S_j$ , of each experiment, of the ratio,  $R_j$ , of the actual start time to the scheduled start time for the j<sup>th</sup> experiment. [25 points]

## FY01 and beyond Peak Performance Goal (PPG): 100%

$$\varepsilon_{sched} = (\Sigma S_j R_j)/(\Sigma S_j)$$
, where  $R_j = (t_{ss} - t_{bs})/(t_{sa} - t_{bs})|_j$ 

If actual performance ( $\varepsilon_{\text{sched}}$ ) is at least 50% of agreed PPG, then % of points awarded = % of PPG achieved. No points are awarded if actual performance is less than 25% of agreed PPG.

Performance Level	Adjectival Rating	% of Assigned Points
90% to 100% of PPG	Outstanding	90 to 100
80% to < 90% of PPG	Excellent	80 to < 90
70% to < 80% of PPG	Good	70 to < 80
60% to < 70% of PPG	Marginal	60 to < 70
50% to < 60% of PPG	Unsatisfactory (Poor)	50 to < 60
25% to < 50% of PPG	Unsatisfactory (Failing)	2 * (% of PPG achieved - 25%)

#### Notes:

1) The basic schedule will be issued every six months; it will confirm the remainder of the "firm" schedule which has been in progress for the preceding three months and announce the firm schedule for a period

- extending to nine months from the date of issue and the tentative schedule for six months following the announced firm schedule.
- 2) Schedule changes requested by the experimenter or deemed mutually beneficial to both the experimenter and the laboratory shall be treated as if the changed date was listed in the original schedule for the purposes of calculating this sum.
- 2.4 Overall operations effectiveness,  $\varepsilon_{ops}$ , defined as the ratio of the total time the accelerator is operated for physics (in weeks) to the total accelerator operations (in weeks) that was identified as the joint expectation for the year during negotiations of the laboratory's operations budget. [25 points]

## FY01 Peak Performance Goal (PPG): 100%

 $\varepsilon_{ops}$  = (weeks of accelerator operations for physics)/(weeks for accelerator ops in contract)

If actual performance ( $\varepsilon_{ops}$ ) is at least 50% of agreed PPG, then % of points awarded = % of PPG achieved. No points are awarded if actual performance is less than 25% of agreed PPG.

Performance Level	Adjectival Rating	% of Assigned Points
90% to 100% of PPG	Outstanding	90 to 100
80% to < 90% of PPG	Excellent	80 to < 90
70% to < 80% of PPG	Good	70 to < 80
60% to < 70% of PPG	Marginal	60 to < 70
50% to < 60% of PPG	Unsatisfactory (Poor)	50 to < 60
25% to < 50% of PPG	Unsatisfactory (Failing)	2 * (% of PPG achieved - 25%)

## 3. Production of Scientific and Technical Manpower

#### 3A. Overview

Objective: Jefferson Lab will contribute to the education and training of the future scientific/technical work force for the nation, emphasizing meaningful, unique research experiences at the forefront in its areas of physics and engineering and also emphasizing increasing the qualifications of underrepresented populations for scientific/technical careers.

## **Key Indicator (60 points):**

- 3.0a Number of student years per year on Jefferson Lab-related research or technical activities. [35 points]
- 3.0b Total number of advanced degrees per year based on Jefferson Lab research. [25 points]

#### Secondary Indicators (15 points):

- 3.1 Number of advanced degrees per year (represented by a three-year average) granted by minority universities and based on Jefferson Lab research. [5 points]
- 3.2 Participation of students from groups traditionally underrepresented in physical science and engineering fields. [10 points]

## 3B. Performance Evaluation Plan

3.0a Number of student years per year on Jefferson Lab-related research or technical activities. [35 points]

## Methodology

The data collection process involves two major components: the administration of a Jefferson Lab Users Group Survey and a cross-check against the University Relations student inventory list. Surveys are sent to the complete Users Group. An initial response rate of 10-20% of the group of active users is considered reasonable. However, to understand the nature of the full population, a follow-up survey of one in 15 non-respondents will be conducted. This follow-up survey attempts to capture non-respondents who ignored the initial survey because they thought it was irrelevant to them, but who have valid data that would more accurately reflect the population. Best estimates for user student population are obtained by supplementing the actual student numbers from the initial survey respondents with the expected number of unreported students based on the 1-in-15 follow-up survey.

Scoring: Tally the number for each high school, undergraduate, and graduate student involved in Jefferson Lab-related research or technical activities (including computing) at Jefferson Lab and collaborating institutions and apply the following equation:

WSII (Weighted Student Involvement Index) = 1HSS + 2UGS + 4GS where HSS = High School Students, UGS = Undergraduate Students, and GS = Graduate Students

Performance Level	Adjectival Rating	% of Assigned Points
WSII $\ge 1000 \text{ and} < 1075$	Outstanding	90 to 100
WSII ≥ 925 and <1000	Excellent	80 to < 90
WSII ≥ 850 and < 925	Good	70  to < 80
WSII ≥ 775 and <850	Marginal	60 to < 70
WSII < 775	Unsatisfactory	<60

3.0b Total number of advanced degrees per year based on Jefferson Lab research. [25 points]

## Methodology

To estimate the total number of advanced degrees, initially reported and known degrees are supplemented with the expected numbers of unreported degrees based on the number of unreported students and the base of the reported students obtaining such degrees.

Scoring: Tally the number of Master's Degrees and PhD's awarded for research based at Jefferson Lab or involving strong interaction with Jefferson Lab and apply the following equation:

CD (Composite Degrees) = MD + 3PHD

where MD = Number of awarded Master's degrees and PHD = Number of awarded PhD's

Performance Level	Adjectival Rating	% of Assigned Points
$CD \ge 45$ and $< 53$	Outstanding	90 to 100
CD ≥ 38 and < 45	Excellent	80 to < 90
CD ≥ 30 and < 38	Good	70 to < 80
CD ≥ 23 and <30	Marginal	60 to < 70
CD < 23	Unsatisfactory	<60

3.1 Number of advanced degrees per year (represented by a three-year average) granted by minority universities based on Jefferson Lab research. [5 points]

#### Methodology

Degrees awarded by minority institutions are collected directly. Participation by underrepresented populations are based on the percentages from the initial survey data. Because statistical analysis of small numbers can result in large percentage variations from year to year, a more accurate assessment may be reached by reporting the average over the past three years.

Scoring: See 3.0b scoring scheme, but count degrees granted by minority institutions only (HBCU, MEI, women's colleges) for the past three years, and apply the following equation:

CDM (Composite Degrees Minority) =  $(MD_y + MD_{y-1} + MD_{y-2} + 3(PHD_y + PHD_{y-1} + PHD_{y-2}))/3$  where MD = Number of awarded Master's degrees and PHD = Number of awarded PhD's and y is the current year.

Performance Level	Adjectival Rating	% of Assigned Points	
CMD ≥ 6	Outstanding	100	
CMD ≥ 4 and < 6	Excellent	85	
CMD ≥ 2 and < 4	Good	75	
CMD = 1	Marginal	65	
$CMD \approx 0$	Unsatisfactory	55	

3.2 Participation of students from groups traditionally underrepresented in physical science and engineering fields. [10 points]

Scoring: Determine the MWSII (Minority Weighted Student Involvement Index) for women or underrepresented minorities.

MWSII = 1MHSS + 2MUGS + 4MGS

Where: MHSS = Women or Minority High School Students;

MUGS = Women or Minority Undergraduate Students; and,

#### MGS = Women or Minority Graduate Students

Students who qualify for more than one category can be counted more than once.

Performance Level	Adjectival Rating	% of Assigned Points**	
$MWSII \ge 323 \text{ and } \le 376*$	Outstanding	90 to 100	
MWSII > 269 and < 323	Excellent	80 to < 90	
MWSII > 215 and < 269	Good	70 to < 80	
MWSII > 161 and < 215	Marginal	60 to < 70	
MWSII > 107 and < 161	Unsatisfactory (Poor)	50 to < 60	
MWSII < 107	Unsatisfactory (Failing)	0 to < 50	

<sup>\*</sup> Performance level greater than 376 receive 100% of assigned points.

<sup>\*\*</sup> Percent of assigned points identified in the table can be calculated directly by the following formulas:

<sup>%</sup> of points = (((MWSII - lowest number in Performance Level) / 53) \* 10) + lowest number in % of Assigned Points for MWSII > 107
% of points = (1 - ((106 - MWSII) / 106))) \* 49 for MWSII < 107

## 4. Corporate Citizenship

## 4A. Overview

Objective: As a taxpayer-funded institution, Jefferson Lab should serve the public and the national interest in important areas where it has special competencies which are mission related.

#### PUBLIC OUTREACH AND IMPROVED SCIENTIFIC LITERACY (35 points).

Objective: Scientific literacy and support are essential for the public to make competent decisions on everyday matters of increasingly complex technical nature. Science and math education are important for today's students if they are to complete high school prepared for college or a worthwhile career. As a workplace where science and math are in the forefront, Jefferson Lab can provide unique educational and motivational opportunities and materials. Public awareness of Jefferson Lab and its DOE-sponsorship is also essential for the future well being of the laboratory and the national science enterprise.

## **Key Indicator (20 points)**

4.0 Public participation (in effective person-hours per year): [Number of student hours + number of public hours + 10 \* number of teacher hours] per year, including visits, external public talks, science series, tours, open house, BEAMS, etc.

## **Secondary Indicators (15 points)**

- 4.1 Public visibility: Number of newspaper and magazine articles, Web-based news systems, and radio and television programs mentioning Jefferson Lab and its science or technology (7 points); percentage of these citations mentioning DOE (3 points). [10 points total]
- 4.2 "Customer satisfaction" [5 points]

#### **TECHNOLOGY TRANSFER (40 points)**

Objective: The objective of the Jefferson Lab technology transfer program is the dissemination of key technologies to industry that are developed as result of Jefferson Lab's primary scientific mission and that are of interest to industry.

## **Key Indicator (20 points)**

4.3 Non-DOE investment in Jefferson Lab initiatives (including direct dollars, manpower costs, and contributions in-kind).

## **Secondary Indicators (20 points)**

- 4.4 Intellectual property generation as indicated by the annual number of (a) patent applications,(b) patents awarded, (c) license agreements. [10 points]
- 4.5 Benefit to partners based on the results of a mutually agreed customer survey where the customer indicates level of satisfaction on a 1 (lowest) to 5 (highest) scale. [10 points]

-25-

## 4B. Performance Evaluation Plan

#### PUBLIC OUTREACH AND IMPROVED SCIENTIFIC LITERACY [35 points]

#### Introduction:

Jefferson Lab's effect on public awareness and literacy is strongest when people have direct personal contact with laboratory personnel and facilities. The typical minimum time to influence a person's awareness and literacy of things that are outside his/her area of expertise is about an hour, and significant learning can occur in this period. Teachers learn not just for themselves but to pass on information and concepts to their students. Typical teachers contact 25-100 students per year, but the literacy transfer to the students is likely to be lower than it would be if the students participated in the Jefferson Lab experience directly. Consequently, the multiplier 10 for teacher participation is a conservative adjustment for the true outreach/literacy impact.

4.0 Public participation (in effective person-hours per year): [Number of student hours + number of public hours + 10 \* number of teacher hours] per year, including visits, external public talks, science series, tours, open house, BEAMS, etc. [20 points]

Scoring: Count or estimate the number  $(N_i)$  of participants or attendees in each event (i). Measure the duration  $(t_i)$  in hours of the activity, event, or the typical person's involvement. People counted under Scientific Manpower do not count here; high school students doing research do not count.

Calculate the public participation metric (P)

$$P = \sum_{i} N_i t_i$$
 for all events

#### Peak Performance Goal (PPG):

Good faith efforts will be made to ensure N<sub>i</sub> is accurate within 10%; t<sub>i</sub> will be measured to the nearest half hour. For FY 2001 Jefferson Lab's Peak Performance Goal (PPG) will be:

- -105,000 person-hours broken down as:
  - Science and Education students, teachers, parents 95,000\*
  - Public Outreach 10,000
- Note: If the TRAC program is not funded by DOE, this number will be reduced by 25,000 to 80,000 person-hours overall and 70,000 person-hours for science education. The corresponding ratings will be:

Performance Level	Adjectival Rating	% of Assigned Points <sup>†</sup>
90% to 100% of PPG	Outstanding	90 to 100
80% to < 90% of PPG	Excellent	80 to < 90
70% to < 80% of PPG	Good	70 to < 80
60% to < 70% of PPG	Marginal	60 to < 70
50% to < 60% of PPG	Unsatisfactory (Poor)	50 to < 60
0% to < 50% of PPG	Unsatisfactory (Failing)	0 to < 50

<sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed.

4.1 (a) Public visibility: Number of newspaper and magazine articles, Web-based news systems, and radio and television programs mentioning Jefferson Lab and its science or technology (7 points); (b) percentage of these citations mentioning DOE (3 points). [10 points total]

## Scoring:

a) Public Visibility "V" [7 points]

$V = \Sigma Wi$	Wi = Ci + Di	i = each article, radio or TV appe	arance
Circulation Weis	ghting Factors (Ci)	Distribution Factor	(Di)
<10.000	1	Local inside SE Virginia	0
10,000-50,000	2	Local outside SE Virginia	+1
50,000-250,000	3	Regional	+1
>250,000	4	National	+2
~230,000	•	International	+3

Regional is defined as Washington DC, Maryland, West Virginia, Tennessee and North Carolina.

The number counted will be  $\leq$  the number occurring, because we would not necessarily be aware of all coverage. If one article is repeated in many publications, add the audience circulation factor and the distribution factors for each. Each article in a series of articles will be counted individually.

Peak Performance Goal (PPG): For FY 2001 Jefferson Lab's Peak Performance Goal will be 400. Scoring will be determined using the values in the following table.

Performance Level	Adjectival Rating	% of Assigned Points
90% to 100% of PPG	Outstanding	90 to 100
80% to < 90% of PPG	Excellent	80 to < 90
70% to < 80% of PPG	Good	70 to < 80
60% to < 70% of PPG	Marginal	60 to < 70
50% to < 60% of PPG	Unsatisfactory (Poor)	50 to < 60
0% to < 50% of PPG	Unsatisfactory (Failing)	0 to < 50
0% to < 50% of PPG	Olisatisfactory (1 driffig)	11.4

<sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed.

## b) DOE Citation. [3 points]

Percent mentioning DOE: Count the articles, broadcasts, exhibits, interviews and videos (A) initiated by Jefferson Lab which feature the laboratory and the subset (S) of those communications in which the Laboratory mentions DOE. In the case where the Laboratory mentions "DOE" in a proposed article or broadcast and the final version is revised or altered by the media, the Laboratory will receive credit for the article or broadcast since the Laboratory has no control over the final version. Percent = 100 S/A. The score is as follows:

Performance Level	Adjectival Rating	% of Assigned Points
90% to 100%	Outstanding	90 to 100
80% to < 90%	Excellent	80 to < 90
70% to < 80%	Good	70 to < 80
60% to < 70%	Marginal	60 to < 70
50% to < 60%	Unsatisfactory (Poor)	50 to < 60
0% to < 50%	Unsatisfactory (Failing)	0 to < 50

<sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed.

## 4.2 Customer satisfaction. [5 points]

Scoring: Normalize all feedback from customers (overall ratings) for selected events and activities [to be determined by the laboratory and the DOE Site Office], with average or neutral being 70. Average all available event scores. For public participation events, at least 15% of the total number of participants will be surveyed. This fraction should be representative of a reasonable cross-section of all such public events. For education events, at least 80% of the participants will be surveyed.

Each customer indicates a level of satisfaction on a 1 (lowest) to 5 (highest) scale for each event. After each event, average is calculated, average the event averages resulting in one overall average (A). Normalize the average (A) according to the following formula:

 $N_A$ =Normalized Average (A) = [(A - 1)\*15] + 40

Performance Level (NA)	Adjectival Rating	% of Assigned Points <sup>†</sup>
90 to 100	Outstanding	90 to 100
80 to < 90	Excellent	80 to < 90
70 to < 80	Good	70 to < 80
60 to < 70	Marginal	60 to < 70
50 to < 60	Unsatisfactory (Poor)	50 to < 60
40 to < 50	Unsatisfactory (Failing)	0  to < 50

<sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed.

### **TECHNOLOGY TRANSFER (40 points)**

4.3 Non-DOE investment in Jefferson Lab initiatives (including direct dollars, manpower costs, and contributions in-kind) [20 points]

## Scoring:

	Performance Level			Adjectival Rating	Assigned Points	
Non-DOE Investment 2% to 2.5% of Jefferson Lab ops budget		Outstanding	18 to 20			
"	11	1.5% to < 2%	11	н	Excellent	16 to < 18
11	()	1% to < 1.5%	11	1)	Good	14 to < 16
11	и	0.5% to < 1%	н	11	Marginal	12 to < 14
11	17	0.25% to < 0.5%	11	1)	Unsatisfactory (Poor)	10 to < 12
"	н	< 0.25%	(1	51	Unsatisfactory (Failing)	0 to < 10

<sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed.

- 4.4 Intellectual property generation as indicated by the annual number of [10 points]:
  - (a) patent applications
  - (b) patents awarded
  - (c) license agreements

#### Scoring:

Performance Level	Adjectival Rating	Assigned Points
Two license granted or one patent award or 5 or more patent applications executed	Outstanding	10
4 patent applications executed	Excellent	8
3 patent applications executed	Good	6
2 patent applications executed	Marginal	4
1 patent application executed	Unsatisfactory (Poor)	2
0 patent application executed	Unsatisfactory (Failing)	0

4.5 Benefit to partners based on the results of a mutually agreed customer survey where the customer indicates level of satisfaction on a 1 (lowest) to 5 (highest) scale. [10 points]

#### Scoring:

Performance Level (Average Rating on Customer Survey)	Adjectival Rating	% of Assigned Points †	
4.0 to 5.0	Outstanding	90 to 100	
3.5 to < 4.0	Excellent	80 to < 90	
3.0 to < 3.5	Good	70 to < 80	
2.5 to < 3.0	Marginal	60 to < 70	
2.0 to < 2.5	Unsatisfactory (Poor)	50 to < 60	
0.0 to < 2.0	Unsatisfactory (Failing)	0 to < 50	

<sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed.

# 5. Quality Performance in Environment, Health, and Safety5.A Overview

Objective: Protection of workers, the public and the environment, adherence to the ALARA concept, and compliance with laws, regulations, statutory requirements, and appropriate national initiatives (recycling, waste reduction, etc.) at lowest reasonable cost.

## **Key Indicators (55 Points)**

- 5.0a Cost index: 100 \* (\$1,000,000 \* fatalities + \$500,000 \* permanent transfers or terminations due to occupational illness or injury + 2,000 \* lost workday cases + 1,000 \* days away from work + 400 \* restricted workdays + 2,000 \* number of non-fatal cases without days away from work or restricted workdays) / total work-hours. [35 points]
- 5.0b Jefferson Lab environmental exceedances per fiscal year. [20 points]

#### **Secondary Indicators (45 points)**

- 5.1 Jefferson Lab lost work day case rate (cases per 100 person years worked). [15 points]
- 5.2a Number of reportable and recordable exposures to radiation as off-normal occurrences, plus 5 times this number for unusual occurrences. [4 points]
- 5.2b Number of reportable and recordable exposures to hazardous substances as off-normal occurrences, plus 5 times this number for unusual occurrences. [4 points]
- 5.3 Solid waste recycled, in tons, divided by (solid waste sent to landfill, in tons + solid waste recycled, in tons). [6 points]
- 5.4a Pounds of radioactive waste produced by (equipment upgrades + maintenance) divided by pounds of radioactive waste produced by (equipment upgrades + maintenance + unintentional processes). [4 points]
- 5.4b Pounds of hazardous waste produced divided by pounds of hazardous waste which would have been produced without countermeasures. [4 points]
- 5.5 Peer review of Emergency Management Program in odd-numbered fiscal years, and of Radiological Control Program in even-numbered fiscal years. [4 points]
- 5.6 Fraction of high-value facilities rated "Highly Protected Risk." [4 points]

## 5B. Performance Evaluation Plan

5.0a Cost index: 100 \* (\$1,000,000 \* fatalities + \$500,000 \* permanent transfers or terminations due to occupational illness or injury + 2,000 \* lost workday cases + 1,000 \* days away from work + 400 \* restricted workdays + 2,000 \* number of non-fatal cases without days away from work or restricted workdays) / total work-hours. [35 points]

#### Introduction:

Goal: To achieve a performance level which is 50% better than the DOE Lab average.

#### Qualifiers:

- · Comprises all SURA/Jefferson Lab staff
- Includes official travel
- Includes personnel paid under joint salary arrangements

Data collection: EH&S Reporting Data evaluation: EH&S Reporting

Performance measure custodian: EH&S Reporting

Performance measurement validation: Relevant information is presently collected.

Scoring: Based on ratio R of Jefferson Lab's performance during the rating (fiscal) year to the average of DOE Research Contractors for the immediately preceding calendar year, as shown in Table S3 of the publication "DOE Occupational Injury and Property Damage Summary." Note that if 1/R=1.50, then the Laboratory's goal is met and 100% of the available points are awarded. Other scores are illustrated in the following Table; Figure 5.1 on the following page shows the logarithmic interpolation between performance levels listed in the Table:

Performance Level (R)	Adjectival Rating	% of Assigned Points [92.7 -12.5(log <sub>2</sub> R)]	
1.162 to 0.667	Outstanding	90 to 100	
2.022 to 1.162	Excellent	80 to <90	
3.521 to 2.022	Good	70 to <80	
6.130 to 3.521	Marginal	60 to <70	
10.67 to 6.130	Unsatisfactory (Poor)	50 to <60	
170.8 to 10.67	Unsatisfactory (Failing)	0 to <50	

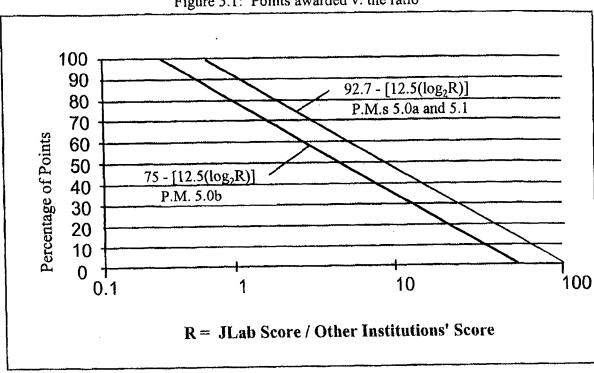


Figure 5.1: Points awarded v. the ratio

5.0b Jefferson Lab environmental exceedances per fiscal year. [20 points]

#### Introduction:

Goal: To achieve a performance level which is 4 times as good as the DOE complex average. **Qualifiers:** 

- Violation points for purely administrative violations caused by late reporting of routine information to the regulatory agency may be waived (for purposes of this performance measure) by agreement of SURA and the DOE Site Office if SURA had all necessary information to the Site Office at least two working days before it was due
- Violation points for multiple related concurrent violations will be treated as a single violation
- Occurrence Reporting and Processing System (ORPS) thresholds are as defined in order 232.1 dated 9/25/95

Data collection: EH&S Reporting, receiving information from the Site Office

Data evaluation: EH&S Reporting

Performance measure custodian: EH&S Reporting

Performance measurement validation: Relevant information is presently collected. Site Office is the permit holder, and receives information directly on Jefferson Lab environmental exceedances.

Scoring: Jefferson Lab's current performance is evaluated against a permanent baseline of DOEwide performance for CY 1995. Performance level is based on the ratio R of Jefferson Lab's

performance per FTE to the DOE-wide environmental exceedances performance per FTE, using CY 1995 (as extracted from EH-33 special survey).

### Values assigned as follows:

- A ".1" environmental exceedance for a purely administrative violation that is reportable under the ORPS.
- A ".3" environmental exceedance for an environmentally significant violation that results in no long-term (typically less than 30 days) environmental damage, but the violation is ORPS reportable.
- A "1.0" environmental exceedance for a violation that has a significant environmental impact of > 30 days and is ORPS reportable.

The sum of these values is divided by the Jefferson Lab FTEs and compared to the permanent DOE baseline to develop the ratio, R. Note that if 1/R=4, then the Laboratory's goal is met and 100% of the available points are awarded. Other scores are illustrated in the following Table; Figure 5.1 shows the logarithmic interpolation between performance levels listed in the Table:

Performance Level (R)	Adjectival Rating	% of Assigned Points [75-12.5(log <sub>2</sub> R)]
.436 to .25	Outstanding	90 to 100
.758 to .436	Excellent	80 to <90
1.32 to .758	Good	70 to <80
2.30 to 1.32	Marginal	60 to <70
4.0 to 2.30	Unsatisfactory (Poor)	50 to <60
64.0 to 4.0	Unsatisfactory (Failing)	0 to <50

5.1 Jefferson Lab lost work day case rate (cases per 100 person years worked). [15 points]

#### Introduction:

Goal: To achieve a performance level which is 50% better than the DOE Lab average.

#### Qualifiers:

- Comprises all SURA/Jefferson Lab staff
- Includes official travel
- · Includes personnel paid under joint salary arrangements

Data collection: EH&S Reporting
Data evaluation: EH&S Reporting

Performance measure custodian: EH&S Reporting

Performance measurement validation: Relevant information is presently collected.

Scoring: Based on ratio R of Jefferson Lab's performance during the rating (fiscal) year to the average of DOE Research Contractors for the immediately preceding calendar year, as shown in Table S3 of the publication "DOE Occupational Injury and Property Damage Summary." Note that if 1/R=1.50, then the Laboratory's goal is met and 100% of the available points are awarded.

Other scores are illustrated in the following Table; Figure 5.1 shows the logarithmic interpolation between performance levels listed in the Table:

Performance Level (R)	Adjectival Rating	% of Assigned Points [92.7 - 12.5(log <sub>2</sub> R)]
1.162 to 0.667	Outstanding	90 to 100
2.022 to 1.162	Excellent	80 to <90
3.521 to 2.022	Good	70 to <80
6.130 to 3.521	Marginal	60 to <70
10.67 to 6.130	Unsatisfactory (Poor)	50 to <60
170.8 to 10.67	Unsatisfactory (Failing)	0 to <50

5.2a Number of reportable and recordable exposures to radiation as off-normal occurrences, plus 5 times this number for unusual occurrences. [4 points]

#### Introduction:

Goal: To have a satisfactory ALARA program, with no exposures > 80% of the ORPS offnormal threshold

## Qualifiers:

- Includes everyone on site (including adjacent space leased by SURA and those personnel covered by the Jefferson Lab radiation dosimetry program)
- Only the worst exposure is counted in an event involving radiation exposure
- Excludes exposures pre-approved in accordance with the Rad Con Manual
- ORPS thresholds are as defined in order 232.1, dated 9/25/95

Data collection: Radiological Control reports the information to EH&S Reporting

Data evaluation: EH&S Reporting

Performance measure custodian: EH&S Reporting

Performance measurement validation: Relevant information is presently collected

Scoring: Based directly on exposures and program evaluation. Values assigned as follows:

- 0.00 for ALARA program rated better than satisfactory in the most recent internal evaluation (performed by the Radiological Control Manager during the preceding 12 months)
- 0.01 for ALARA program rated satisfactory in the most recent internal evaluation
- 0.1 for ALARA program rated less than adequate in the most recent internal evaluation
- 0.5 for an event in which the worst whole body exposure is above 80% but below 100% of the ORPS off-normal threshold
- 1.0 for an event in which the worst whole body exposure is above the ORPS off-normal threshold but below the unusual occurrence threshold
- 5.0 for an event in which the worst whole body exposure is above the ORPS unusual occurrence threshold

Performance Level is given by the sum (S) of these values.

Performance Level (S)	Adjectival Rating	% of Assigned Points
< 0.1 to 0.01	Outstanding	90 to 100
0.5 to 0.1	Excellent	80 to <90
1.0  to > 0.5	Good	70 to <80
5.0  to > 1.0	Marginal	60 to <70
10.0 to > 5.0	Unsatisfactory (Poor)	50 to <60
> 10.0	Unsatisfactory (Failing)	0 to <50

<sup>&</sup>lt;sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed except performance levels >10.0 are scored by logarithmic extrapolation from Marginal and Unsatisfactory (Poor).

5.2b Number of reportable and recordable exposures to hazardous substances as off-normal occurrences, plus 5 times this number for unusual occurrences. [4 points]

#### Introduction:

Goal: To have no exposures above an OSHA action level.

#### **Oualifiers:**

- Includes everyone on site (including adjacent space leased by SURA)
- ORPS thresholds are as defined in order 232.1, dated 9/25/95
- No more than three exposures are counted in a single incident

Data collection: Industrial Hygiene Staff report the information to EH&S Reporting

Data evaluation: EH&S Reporting

Performance measure custodian: EH&S Reporting

Performance measurement validation: Relevant information is presently collected

Scoring: Based on exposures. Values assigned as follows:

- 0.1 for an exposure above an OSHA action level, but less than the ORPS off-normal threshold (2 times the OSHA permissible exposure level)
- 1.0 for an exposure above the ORPS off-normal threshold, but below the unusual occurrence threshold
- 5.0 for an exposure above the unusual occurrence threshold (5 times the OSHA permissible exposure level)

Performance Level is given by the sum (S) of these values

Performance Level (S)	Adjectival Rating	% of Assigned Points†
0.5 to 0.0	Outstanding	90 to 100
1.0  to > 0.5	Excellent 80 to <90	
4 to > 1.0	Good	70 to <80
16 to > 4	Marginal	60 to <70
35 to > 16	Unsatisfactory (Poor)	50 to <60
> 35	Unsatisfactory (Failing)	0 to <50

<sup>&</sup>lt;sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed except performance levels >35 are scored by logarithmic extrapolation from Marginal and Unsatisfactory (Poor).

5.3 Solid waste recycled, in tons, divided by (solid waste sent to landfill, in tons + solid waste recycled, in tons). [6 points]

## Introduction:

Goal: To exceed the FY94 baseline recycling ratio (0.021) by 44%

#### Qualifiers:

- Includes solid waste in dumpsters on the Jefferson Lab site
- Includes solid waste picked up for recycling from the Jefferson Lab site
- Weights are measured by the subcontractors as part of the subcontract requirements
- · Additional waste streams may be added if they are found to be significant

Data collection: The solid waste and recycling subcontractors report the information to Plant

Engineering, which consolidates the data and forwards it to EH&S Reporting

Data evaluation: EH&S Reporting

Performance evaluation: EH&S Reporting

Performance measurement validation: Relevant information is presently collected

Scoring: Based directly on current year's recycling ratio.

Performance Level (Ratio)	Adjectival Rating	% of Assigned Points†
$0.026 \text{ to} \le 0.030$	Outstanding	90 to 100
0.020 to < 0.026	Excellent	80 to <90
0.010 to < 0.020	Good	70 to <80
0.005 to < 0.010	Marginal	60 to <70
0.002 to < 0.005	Unsatisfactory (Poor)	50 to <60
< 0.002	Unsatisfactory (Failing)	0 to <50

In each adjectival category, points are assigned by linear interpolation between the ranges listed except performance levels <0.002 are scored by logarithmic extrapolation from Marginal and Unsatisfactory (Poor).

5.4a Pounds of radioactive waste produced by (equipment upgrades + maintenance) divided by pounds of radioactive waste produced by (equipment upgrades + maintenance + unintentional processes). [4 points]

#### Introduction:

Goal: To limit generation of radioactive waste by unintentional processes to 10% of total radioactive waste generated

#### **Oualifiers:**

- Equipment upgrades includes the removal of equipment which is no longer in use
- Maintenance includes repairs necessitated by spontaneous failures
- Unintentional processes exclude radioactive waste caused by spontaneous failures.
- Only accelerator and experimental equipment components are included

- Unintentional processes include thermal damage caused by the beam and mechanical damage, plus other processes only if the information is available to theRadiological Control Group without investigation by that group
- If no radioactive waste is generated in a year, a rating of 95% will be assigned

Data collection: The Radiological Control Group collects this information and forwards it to

EH&S Reporting

Data evaluation: EH&S Reporting

Performance measure custodian: EH&S Reporting

Performance measurement validation: Relevant information is readily collectible

Scoring: Based directly on ratio

Performance Level (Ratio)	Adjectival Rating	% of Assigned Points†
$0.80 \text{ to} \le 0.90$	Outstanding	90 to 100
0.70  to < 0.80	Excellent	80 to <90
0.60 to < 0.70	Good	70 to <80
0.50 to < 0.60	Marginal	60 to <70
0.40 to < 0.50	Unsatisfactory (Poor)	50 to <60
0.00 to < 0.40	Unsatisfactory (Failing)	0 to <50

<sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed.

5.4b Pounds of hazardous waste produced divided by pounds of hazardous waste which would have been produced without countermeasures. [4 points]

#### Introduction:

Goal: To reduce hazardous waste generation by a factor of 4 relative to the amount which would be produced without countermeasures

Qualifiers: None

**Data collection:** Pounds of hazardous waste is determined by the Hazardous Waste Coordinator. Pounds of hazardous waste which would have been produced without countermeasures is determined jointly by the hazardous waste coordinator and the hazardous waste producer.

Data evaluation: EH&S Reporting

Performance measure custodian: EH&S Reporting

Performance measurement validation: The criteria used for determining pounds of hazardous waste which would have been produced without countermeasures are reviewed by

EH&S Reporting to ensure validity

Scoring: Based directly on ratio

Performance Level (Ratio)	Adjectival Rating	% of Assigned Points†
0.4  to > 0.25	Outstanding	90 to 100
0.5  to > 0.4	Excellent	80 to <90
0.6  to > 0.5	Good	70 to <80
0.7  to > 0.6	Marginal	60 to <70
0.8  to > 0.7	Unsatisfactory (Poor)	50 to <60
1.0  to > 0.8	Unsatisfactory (Failing)	0 to <50

In each adjectival category, points are assigned by linear interpolation between the ranges listed.

5.5 Peer review of the Emergency Management Program in odd-numbered fiscal years, and of the Radiological Control Program in even-numbered fiscal years. [4 points]

#### Introduction:

Goal: Program (including planning and response services and facilities) is appropriate for a low-hazard, non-nuclear accelerator facility

#### Qualifiers:

- Factors considered by Emergency Management Review Committee:
  - Gaps or redundancies relative to services available in surrounding communities
  - Appropriate balance between costs and potential benefits
  - Efficient use of resources applied
  - Related Appendix E requirements in effect on November 1, 1996, including those replaced by this performance measure, provided to Review Committee for their information and use
- Factors considered by Radiological Control Review Committee:
  - Management and control of exposures to workers and the public
  - Control of radiological damage to the environment
  - Achievement of exposures which are as low as reasonable, considering cost
  - Compliance with laws, regulations, and other Necessary Standards
  - Results of DOELAP review when conducted since the last Radiological Control Program review
  - Efficient use of resources applied
  - Related Appendix E requirements in effect on November 1, 1996, including those replaced by this performance measure, provided to Review Committee for their information and use

Data collection: The Emergency Management Manager and Radiological Control Manager, respectively, provide appropriate data to the Review Committee.

## Data evaluation:

- Performed by the Review Committee
- · Duration of review one to two days
- Emergency Management Review Committee:
  - Membership:
    - Emergency management professional from the surrounding community

- Emergency management professional from a low-hazard DOE laboratory
- Line manager from Thomas Jefferson National Accelerator Facility
- Line manager from an industrial organization in surrounding community
- Observer from DOE
- Members and chairperson selected by Emergency Management Manager, subject to DOE Site Office concurrence
- Radiological Control Review Committee:
  - Membership:
    - Two radiological professionals from DOE laboratories
  - Line manager, active or recently retired, from an organization with substantial accelerator experience (excluding Jefferson Lab)
  - Members selected by Radiological Control Manager, subject to DOE Site Office concurrence
  - Professionals from DOE laboratories are expected to be familiar with applicable laws, regulations, and other Necessary Standards
- The Review Committee is asked to assign a percentage rating to the extent to which the goal, as qualified above, is achieved
- The Review Committee is asked to point out noteworthy strengths and also opportunities for improvement in effectiveness or efficiency

Performance measure custodian: EH&S Reporting

**Performance measurement validation:** The independence of the majority of the members assures the validity of the results

Scoring: Based directly on percentage rating by Review Committee (The non-linear relationship to the percentage of assigned points reflects the subjectivity necessarily associated with a small review committee.)

Performance Level (Score, %)	Adjectival Rating	% of Assigned Points†
$80 \text{ to} \ge 100$	Outstanding	90 to 100
70 to < 80	Excellent	80 to <90
60 to < 70	Good	70 to <80
50 to < 60	Marginal	60 to <70
40 to < 50	Unsatisfactory (Poor)	50 to <60
0 to < 40	Unsatisfactory (Failing)	0 to <50

In each adjectival category, points are assigned by linear interpolation between the ranges listed.

## 5.6 Fraction of high-value facilities rated "Highly Protected Risk." [4 points]

#### Introduction:

Goal: All high-value facilities meet insurance carrier criteria for Highly Protected Risk designation

Qualifiers:

- A facility is a separate building and its contents
- A facility is high-value if it has a maximum credible fire loss of \$1 million or more
- · A facility is high-value if it is mission essential
- A facility is mission essential if its maximum credible fire loss would result in more than a three month programmatic delay

**Data collection:** Facilities which are high-value are determined by the Plant Engineering Director, with DOE Site Office concurrence. Information required to classify the level of fire protection is collected by representatives from the technical services group of SURA's fire and property insurance carrier.

**Data evaluation:** Performed by representatives from the technical services group of SURA's fire and property insurance carrier

Performance measure custodian: EH&S Reporting

Performance measurement validation: Site Office concurrence ensures that the high-value facilities are correctly identified. The fact that the same insurance carrier classifies the fire protection risk and provides SURA's fire coverage assures accuracy in the classification.

Scoring: Based directly on fraction of high-value facilities meeting criteria

Performance Level (Score)	Adjectival Rating	% of Assigned Points†
0.95 to 1.00	Outstanding	90 to 100
0.90 to < 0.95	Excellent	80 to <90
0.85 to < 0.90	Good	70 to <80
0.80 to < 0.85	Marginal	60 to <70
0.75 to < 0.80	Unsatisfactory (Poor)	50 to <60
0.00 to < 0.75	Unsatisfactory (Failing)	0 to <50

<sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed.

## 6. Quality of Business and Administrative Practices 6A. Overview

**Objective:** Maintaining effective and efficient business and administrative practices at Jefferson Lab.

## **Key Indicator (70 points)**

#### 6.0 Peer Review

General Charge to Peer Review Panel: With DOE concurrence, SURA will issue the charge to the Panel. Generally, the charge will be to assess the overall strengths and weaknesses of the Laboratory's business and administrative infrastructure, with a special focus each year on one of these Secondary Indicator Areas below. More detailed guidance will be developed based on special circumstances at the time of the review. To achieve this objective, review each major overhead/indirect cost area. Areas to be reviewed include:

- Self assessment
- Contractual requirements and performance standards
- · Annual objectives
- Internal audits
- External reviews
- · Benchmarking efforts

The Panel will have access to Secondary Indicators as input to its review.

Frequency and Duration: Annually, three days, with final report due 30 days from last day of review

<u>Panel composition</u>: A five to six member panel, selected by mutual agreement of SURA and DOE, and consisting of CAO equivalents from private industry, national laboratories and the scientific community (including one from the Jefferson Lab user community).

#### Secondary Indicators (30 points)

## **FACILITIES MANAGEMENT (6 points)**

Objective: To manage non-capital and GPP construction projects to maximize the expenditure of funds on actual construction and complete these projects on time and within budget. Real properties usage is optimized. Facilities are adequately maintained and operated to minimize life cycle costs.

6.1 Percentage of overrun on all projects greater than \$100K (contracted price). [1 point]

- 6.2 Variance of scheduled completion time for projects greater than \$100K and of annual milestones of multi-year projects greater than \$100K. [1 point]
- 6.3 Percentage of scheduled preventive maintenance tasks completed by their scheduled due dates. [2 points]
- 6.4 Average percentage of open corrective maintenance tasks (not including those designated Discretionary) that have been open for greater than 3 months. [2 points]

## PROPERTY MANAGEMENT AND PROTECTION (5 points)

Objective: Establish, implement and maintain effective management practices for the control, utilization and disposal of personal property, promote cost economies and efficiencies that result in improved processes, customer satisfaction and the elimination of waste. Such practices cross programmatic lines and contribute to the mission accomplishment of DOE and/or the Laboratory. The Laboratory will, in addition, ensure effective protection of proprietary information, personnel, property and the general public in an effective, cost efficient, risk based and graded manner.

- 6.5 Percentage of value of property not located during the inventory cycle for each of the inventories conducted: capital equipment (biannual odd fiscal years only), sensitive items (annual), and stores (annual). [4 points]
- 6.6 Reduction in the inventory of the Technical Stockroom. [1 point]

#### FINANCIAL MANAGEMENT (6 points)

Objective: Assure effective planning, execution, and monitoring of budgets. Assure effective cash and debt management. Assure cost accounting system is in compliance with Cost Accounting Standards and that Disclosure Statement is current, complete, accurate, and reflective of the accounting system; assure financial practices are in conformance with the approved Disclosure Statement. Assure indirect cost activities are well managed. Assure SURA's internal audit control program maintains accuracy of the financial data, safeguards DOE assets, and prevents fraud, waste, and abuse.

- 6.7 Number of Cost Accounting Standards violations resulting from nonconformance with the approved Disclosure Statement, unless following DOE directives. [1 point]
- 6.8 Dollar percentage of invoices presented for payment deemed unallowable by the Contracting Officer as highlighted in the annual transaction testing audit and any IG audits that take place during the year. [1 point]
- 6.9 Percentage of vendor invoices paid with discounts lost. [1 point]
- 6.10 Percentage of annual actual cost variance from budget for each overhead pool. [1 point]

- 6.11 Number of occurrences that the monthly Cost Management Report (533M) had to be resubmitted to the DOE Contracting Officer to correct erroneous data reported by the Lab. [1 point]
- 6.12 Number of travel expense reports taken from a 10% random sample of Department audited expense reports that contained an error exceeding \$100 that was not detected at the time the expense report was originally audited by Business Services. [1 point]

### PROCUREMENT (6 points)

Objective: Assure procurement functions are carried out so as to be cost effective, meet contractual requirements, satisfy customers' needs, and meet socioeconomic goals.

- 6.13 Average procurement cycle time to award a small purchase order above the micro-purchase threshold (all actions >\$2,500 <\$100,000). [3 points]
- 6.14 Percent of total available purchasing dollars awarded to: small business concerns; small women-owned business concerns; and small disadvantaged business concerns. [3 points]

#### HUMAN RESOURCES AND SERVICES (6 points)

Objective: Attract and retain a diverse workforce capable of successfully executing Jefferson Lab's mission. Provide a workplace environment conducive to employee well-being and growth. Maintain innovative compensation practices aligned with the market place to attract and retain a diverse, well-trained workforce. Maintain innovative and cost-effective health care programs aligned with the commercial market place for similarly situated workforce programs. Provide a comprehensive program of library, publications, and records management services in support of Lab activities.

- 6.15a Percent of action oriented diversity commitments, as established in the Affirmative Action Plan (AAP) completed during the fiscal year. [1 point]
- 6.15b Representation of protected classes (PC) within each EEO-1 category at the end of the fiscal year compared to the beginning of the fiscal year (adjusted for voluntary separations). [1 point]
- 6.16 Sustainable EEOC charges. [1 point]
- 6.17 Achieve compensation positions aligned with market practices to reflect the Lab's midmarket compensation philosophy. [1 point]
- 6.18 Percent of three-year rolling average of annual increases in premium cost relative to market. [1 point]

6.19 Percent of current year's papers written by JLab staff or Users placed on-line. [1 point]

## CYBER SECURITY (1 point)

Objective: Assure JLab computer systems are not compromised or used in attacks on other Internet locations.

6.20 Number of times JLab computer systems were compromised or were used to attack other systems. [1 point]

## 6B. Performance Evaluation Plan

## 6.0 Peer Review [70 Points]

#### Introduction:

The "Key Indicator" for this performance objective will be based on a "peer review" of the Laboratory's administrative system. Associated with the peer review are a set of secondary indicators (performance measures 6.1 - 6.20 listed below) that will be used to monitor the Laboratory's administrative performance in a more detailed way and to extend the validity of the peer review.

Scoring: The Peer Review Panel will assign an adjectival rating to the performance of the laboratory in producing quality business and administrative practices, and an associated percentage of the Key Indicator points within the ranges associated with that rating, according to the following Table:

Adjectival Rating	% of Assigned Points
Outstanding	90 to 100
Excellent	80 to < 90
Good	70 to < 80
Marginal	60 to < 70
Unsatisfactory (Poor)	50 to < 60
Unsatisfactory (Failing)	0 to < 50

#### **FACILITIES MANAGEMENT (6 points)**

## 6.1 Percentage of overrun on all projects greater than \$100K (contracted price) [1 point]

#### Introduction:

Maintain level of construction control to limit change orders and cost overruns to only those which bring added value to the project or are appropriate to produce the desired end product. Performance level will be calculated from the initial bid (contracted) amounts compared to the final contract amounts considering all applicable funding increases for all appropriate contracts closed out during the rating period. Increases considered not applicable are those whose root cause is:

- Post-design programmatic change by user (physical or schedule)
- New technology deemed a value-added inclusion (post-award)
- Value engineering proposals accepted (both additive and deductive)

Value determined will be expressed as a percent overrun.

Performance Level = [(Applicable Final Contract Cost/Initial Contract Amount) - 1] \* 100

# Scoring:

Performance Level	Adjectival Rating	% of Maximum Assigned Points
< 8%	Outstanding	100
> 8% to < 12%	Excellent	85
> 12% to < 18%	Good	75
> 18% to < 25%	Marginal	60
> 25% to < 35%	Unsatisfactory (Poor)	50
> 35%	Unsatisfactory (Failing)	0

6.2 Variance of scheduled completion time for projects greater than \$100K and of annual milestones of multi-year projects greater than \$100K. [1 point]

# Introduction:

Calculation of performance toward this goal will be made by comparing the actual number of days to completion of an identified project (or to a designated milestone) to the number specified contractually. This will be expressed as a coefficient of actual divided by contracted. Additional time attributed to the following categories will not be included for the purpose of this metric:

- Acts of God (as contractually accepted)
- Labor disputes/strikes
- Documented material unavailability (contractually accepted)
- · User desired post-award change orders for which additional time is appropriate

Scoring: For purposes of this report, "completion" shall be when the project is physically complete; turned over to user or beneficial occupancy taken.

Performance Level	Adjectival Rating	% of Maximum Assigned Points
< 1.10	Outstanding	100
> 1.10 to < 1.25	Excellent	85
> 1.25 to < 1.30	Good	75
> 1.30 to < 1.40	Marginal	60
> 1.40 to < 1.50	Unsatisfactory (Poor)	50
> 1.50	Unsatisfactory (Failing)	0

6.3 Percentage of scheduled preventive maintenance tasks completed by their scheduled due dates. [2 points]

# Scoring:

Performance Level = PMs completed as scheduled

PMs scheduled

where PM is defined to be Total Preventive Maintenance actions scheduled per unit time. Activities considered for FY2001 will include mechanical equipment, electrical distribution system, and fire detection/suppression system (water based) subcontracted maintenance. Tasks

that are prohibited by operations and so documented will be rescheduled. The new completion date will be used for performance level calculation.

Performance Level	Adjectival Rating	% of Maximum Assigned Points
≥ 94%	Outstanding	100
≥ 90% to < 94%	Excellent	90
≥ 84% to < 90%	Good	75
≥ 79% to < 84%	Marginal	60
≥ 75% to < 79%	Unsatisfactory (Poor)	50
< 75%	Unsatisfactory (Failing)	0

6.4 Average percentage of open corrective maintenance tasks (not including those designated Discretionary) that have been open for greater than 3 months. [2 points]

Scoring: Identified maintenance needs will be categorized as follows:

- Corrective Maintenance (CM) Critical tasks which could lead to greater problems or costs within a 3-6 month period if corrective maintenance is not accomplished in a timely manner.
- Discretionary Corrective Maintenance (DCM) Identified problems that should be accomplished for system integrity, but do not fit the criticality for CM designation.

The performance level will be compiled on a quarterly basis from input provided by the maintenance subcontractors as addressed in Indicator 6.3. Only data relative to CM tasks will be used in the calculations, and the ratio will be obtained by:

The comments of Indicator 6.3 relative to operations interference apply.

Performance Level	Adjectival Rating	% of Maximum Assigned Points
< 10%	Outstanding	100
> 10% to < 18%	Excellent	85
> 18% to < 28%	Good	75
> 28% to < 35%	Marginal	60
> 35% to < 40%	Unsatisfactory (Poor)	50
>40%	Unsatisfactory (Failing)	0

#### PROPERTY MANAGEMENT AND PROTECTION (5 points)

6.5 Percentage of value of property not located during the inventory cycle for each of the inventories conducted: capital equipment (biannual - odd fiscal years only), sensitive items (annual), and stores (annual). [4 points]

# Scoring:

Performance Level = [(Value of property not located during each of the inventories / Corresponding value of property for each class inventoried) \* 100]

Submeasure	Frequency	Odd Years	Even Years
6.5a Capital Equipment	biannual	2 points	0 pts. (not conducted)
6.5b Sensitive	annual	2 points	4 points
6.5c Stores	annual	1 point	1 point

Performance Level	Adjectival Rating	% of Maximum Assigned Points
< 1%	Outstanding	100
≥ 1% to < 1.5%	Excellent	85
≥ 1.5% to < 2%	Good	70
$\geq 2.0\%$ to $< 3\%$	Marginal	55
$\geq 3.0\%$ to $< 4.0\%$	Unsatisfactory (Poor)	40
≥ 4.0%	Unsatisfactory (Failing)	0

# 6.6 Stores Inventory turnover rate. [1 point]<sup>1</sup>

Reduction in the inventory of the Technical Stockroom by an amount to be negotiated with the DOE Site Office.

# Scoring

Performance Level = Percentage of Technical Stockroom inventory reduction measured by the total dollar stockroom inventory transferred to Property Management divided by the dollar value of the JLab Technical Stockroom shelf inventory as of the negotiated date.

Performance Level	Adjectival Ruting	% of Maximum Assigned Points
≥ TBD %	Outstanding	100
≥TBD % to < TBD %	Excellent	85
≥TBD % to < TBD %	Good	70
≥TBD % to < TBD %	Marginal	60
≥TBD % to < TBD %	Unsatisfactory (Poor)	50
≥TBD %	Unsatisfactory (Failing)	. 0

<sup>&</sup>lt;sup>1</sup> Date and amount/performance level to be negotiated with the DOE Site Office by January 31, 2001.

#### FINANCIAL MANAGEMENT (6 points)

6.7 Number of Cost Accounting Standards violations resulting from nonconformance with the approved Disclosure Statement, unless following DOE directives. [1 point]

# Scoring:

Performance Level	Adjectival Rating	% of Maximum Assigned Points
no violations	Outstanding	100
one violation	Excellent	85
two violations	Good	70
three violations	Marginal	55
four violations	Unsatisfactory (Poor)	40
five violations	Unsatisfactory (Failing)	0

6.8 Dollar percentage of invoices presented for payment deemed unallowable by the Contracting Officer as highlighted in the annual transaction testing audit and any IG audits that take place during the year. [1 point]

# Scoring:

Performance Level	Adjectival Rating	% of Maximum Assigned Points
0% to 1%	Outstanding	100
< 1% to 2%	Excellent	85
< 2% to 3%	Good	70
< 3% to 4%	Marginal	55
< 4% to 5%	Unsatisfactory (Poor)	40
< 5%	Unsatisfactory (Failing)	0

6.9 Percentage of vendor invoices paid with discounts lost. [1 point]

Scoring: The measure of percentage of invoices available for discount and not successfully taken as a percentage of invoices processed with discounts plus invoices with discounts lost are:

Performance Level	Adjectival Rating	% of Maximum Assigned Points
0% to 1%	Outstanding	100
< 1% to 2%	Excellent	85
< 2% to 3%	Good	70
< 3% to 4%	Marginal	55
< 4% to 5%	Unsatisfactory (Poor)	40
< 5%	Unsatisfactory (Failing)	0

6.10 Percentage of annual actual cost variance from budget for each overhead pool. [1 point]

# Scoring:

Performance Level	Adjectival Rating	% of Maximum Assigned Points
0% to 3.0% variance	Outstanding	100
3.1% to 6.0% variance	Excellent	85
6.1% to 9.0% variance	Good	70
9.1% to 12.0% variance	Marginal	55
12.1% to 15.0% variance	Unsatisfactory (Poor)	40
> 15% variance	Unsatisfactory (Failing)	0

6.11 Number of occurrences that the monthly Cost Management Report (533M) had to be resubmitted to the DOE Contracting Officer to correct erroneous data reported by the Lab. [1 point]

## Scoring:

Performance Level	Adjectival Rating	% of Maximum Assigned Points
0 occurrences	Outstanding	100
1 occurrence	Excellent	85
2-3 occurrences	Good	70
4-5 occurrences	Marginal	55
6-7 occurrences	Unsatisfactory (Poor)	40
> 8 occurrences	Unsatisfactory (Failing)	0

6.12 Number of travel expense reports taken from a 10% random sample of Department audited expense reports that contained an error exceeding \$100 that was not detected at the time the expense report was originally audited by Business Services. [1 point]

# Scoring:

Performance Level	Adjectival Rating	% of Maximum Assigned Points
0% -2.0%	Outstanding	100
2.1% - 5.0%	Excellent	85
5.1% - 10%	Good	70
10.1% - 15%	Marginal	55
15.1% - 20%	Unsatisfactory (Poor)	40
> 20%	Unsatisfactory (Failing)	0

#### PROCUREMENT (6 points)

6.13 Average procurement cycle time to award a small purchase order above the micro-purchase threshold (all actions >\$2,500 <\$100,000). [3 points]

#### Introduction:

Procurement cycle time is based on the date the purchase requisition is received in Procurement until the action is awarded, but does not include the time required to establish new vendors or time required by Jefferson Lab requisitioners to correct deficient requisition documentation.

# Scoring:

Performance Level	Adjectival Rating	% of Maximum Assigned Points
Less than 14 Calendar Days	Outstanding	100
> 14 to < 21 Calendar Days	Excellent	85
> 21 to < 35 Calendar Days	Good	70
> 35 to < 42 Calendar Days	Marginal	55
> 42 to < 49 Calendar Days	Unsatisfactory (Poor)	40
> 49 Calendar Days	Unsatisfactory (Failing)	0

6.14 Percent of total available purchasing dollars awarded to: small business concerns; small women-owned business concerns; and small disadvantaged business concerns. [3 points]

#### Introduction:

- Total estimated dollar value of all planned subcontracting (to Large and Small Business concerns): \$58,600,000.
- "Total Available Purchasing Dollars" excludes: (i) awards to Government sources (including awards on GSA price schedules to large business firms); (ii) awards to foreign sources; and (iii) credit card purchases.
- Awards to women-owned business concerns, and small disadvantaged business concerns will be counted for every Submeasure that is applicable.

### FY01 Peak Performance Goals (PPG):

- Submeasure 6.14a: Award 46% of total available purchasing dollars (est. \$26,956,000) to small business concerns. (1 point)
- Submeasure 6.14b: Award 6% of available purchasing dollars (est. \$3,516,000) to women owned business concerns. (1 point)
- Submeasure 6.14c: Award 7% of available purchasing dollars (est. \$4,102,000) to small disadvantaged business concerns. (1 point)

Scoring: In each submeasure, scoring relative to peak performance goals will be:

Performance Level	Adjectival Rating	% of Maximum Assigned Points
100%	Outstanding	100
90% to < 100%	Excellent	85
70% to < 90%	Good	70
60% to < 70%	Marginal	55
50% to < 60%	Unsatisfactory (Poor)	40
< 50%	Unsatisfactory (Failing)	0

# HUMAN RESOURCES AND SERVICES (6 points)

6.15a. Percent of action oriented diversity commitments, as established in the Affirmative Action Plan (AAP), Section VII-C, completed during the fiscal year. [1 point]

Scoring: AAP Assessment Factor = # of action oriented diversity commitments

Total # of action oriented diversity commitments

Performance Levels	Adjectival Rating	% of Maximum Assigned Points
Achieve ≥ 90% of diversity commitments	Outstanding	100
Achieve 80% to < 90% of diversity commitments	Excellent	85
Achieve 70% to < 80% of diversity commitments	Good	70
Achieve 55% to < 70% of diversity commitments	Marginal	55
Achieve less 55% of diversity commitments	Unsatisfactory	40

6.15b. Representation of protected classes (PC) within each EEO-1 category at the end of the fiscal year compared to the beginning of the fiscal year (adjusted for voluntary separations). [1 point]

# Scoring:

PC Assessment Factor = % of PC to total workforce at the end of FY within each EEO-1 category
% of PC to total workforce at the beginning of FY within each EEO-1 category

#### where:

Total Workforce = Total number of regular and term employees

(excludes casuals, temps, and students)

EEO-1 Category = Occupational job categories as defined by EEOC (N=10)

Protected Classes (PC) = Women and minorities as defined by EEOC

(N = 20): 2PC \* 10 EEO-1 categories

Note: EEO-1 categories where Utilization percentages meet or exceed Availability percentages are determined to be fully in compliance with this metric.

Performance Levels	Adjectival Rating	% of Maximum Assigned Points
Maintain beginning PC factor in 100% of protected classes	Outstanding	100
Maintain 85% to < 100% of protected classes	Excellent	85
Maintain 70% to < 85% of protected classes	Good	70
Maintain 50% to < 70% of protected classes	Marginal	55
< 50% of protected classes	Unsatisfactory	40

# 6.16 Sustainable EEOC charges. [1 point]

# Scoring:

Performance Level	Adjectival Rating	% of Maximum Assigned Points
0 charges	Outstanding	100
1 charge	Good	80
> 1 charge	Unsatisfactory	0

6.17 Achieve compensation positions aligned with market practices to reflect the Lab's midmarket compensation philosophy. [1 point]

Scoring: Compensation Factor =  $\frac{\sum \text{ (weighted average salary within each classification)}}{\sum \text{ (weighted salary range midpoint* within each classification)}}$ 

<sup>\*</sup>Assumes salary range midpoints reflect mid-market position

Performance Level	Adjectival Rating	% of Maximum Assigned Points
Average salaries within +3.0% of market average	Outstanding	100
Average salaries within +3.1% to +5.0% of market average	Excellent	80
Average salaries within +5.1% to +7.0% of market average	Good	70
Average salaries within +7.1% to +10.0% of market average	Marginal	60
Average salaries greater than +10.0% of market average	Unsatisfactory	50

# 6.18 Percent of three-year rolling average of annual increases in premium cost relative to market. [1 point]

Performance Level	Adjectival Rating	% of Maximum Assigned Points
5% or more below market data	Outstanding	100
Up to 4.9% below market or no more than 2.0%	Excellent	80
above market 2.1% to 5.0% above market	Good	70
5.1% to 8.0% above market	Marginal	60
8.1% to 12.0% above market	Unsatisfactory (Poor)	50
12.1% or more above market	Unsatisfactory (Failing)	0

6.19 Science and Technical Information: Percent of current year's papers written by JLab staff or Users placed online. [1 point]

"Papers" is defined as any paper that is published in a journal or proceedings, or presented at a conference, or any technical note written by researchers that are employees of Jefferson Lab. "User Papers" is defined as any journal-published paper, written and reported to JLab by a User, using research results from Jefferson Lab.

Scoring: Performance on the Science and Technical Information program is measured by the percentage of papers placed online during the fiscal year.

Performance Level	Adjectival Rating	% of Maximum Assigned Points
97-100% of papers placed online	Outstanding	100
94-96% of papers placed online	Excellent	80
91-93% of papers placed online	Good	70
88-90% of papers placed online	Marginal	60
85-87% of papers placed online	Unsatisfactory (Poor)	50
82-84% of papers placed online	Unsatisfactory (Failing)	0

# CYBER SECURITY (1 point)

6.20 Number of times JLab computer systems were compromised or were used to attack other systems. [1 point]

Methodology: Potential Cyber Security Incidents (CSI) considered in this metric include system level (root) compromises on Computer Center and Accelerator Controls managed systems, as well as situations where nodes in the jlab.org domain are used to carry out cyber attacks on other locations on the Internet. Computer Center and Accelerator Controls staff will track incidents and report on them at the end of the fiscal year.

Scoring: CSI = RC + .5(CA) where

RC = the number of incidents of system level (root) compromises on Computer Center or Accelerator Controls managed systems per year

CA = the number of incidents in which a node in the jlab.org domain is used to

carry out a cyber attack on other locations on the Internet

Performance Levels	Adjectival Rating	% of Maximum Assigned Points
CSI = < 1	Outstanding	100
CSI > 1 and <3	Excellent	85
$\overline{\text{CSI}} > 3 \text{ and } < 6$	Good	70
CSI > 6 and <9	Marginal	55
CSI > 9 and <12	Unsatisfactory (Poor)	40
CSI > 12	Unsatisfactory (Failing)	0

# 7.0 Responsible Institutional Management

#### 7A. Overview

Objective: To manage and operate Jefferson Lab in accordance with generally accepted quality management principles so as to achieve its mission goals in a cost effective manner while satisfying its customers, and providing a culture which builds trust and facilitates continuous improvement in all areas of the institution.

#### **Key Indicator (100 points)**

#### 7.0 Peer Review

General Charge to Peer Review Panel: With DOE concurrence, SURA will issue the charge to the Panel. Generally, the charge will be to assess overall institutional management of Jefferson Lab with emphasis on the three criteria of strategic planning, managerial effectiveness, and organizational culture. More detailed guidance will be developed based on special circumstances at the time of the review. All other metrics provided for in this Appendix are made available to this committee as well as the results of external and internal reviews during the performance period.

<u>Frequency and Duration:</u> Two days every 2 years, divided between presentations, site tours/inspections, and report drafting. The final report is due 30 days from conclusion of review.

<u>Panel composition:</u> A panel selected by mutual agreement of SURA and DOE, and consisting of:

- 1 DOE Lab Director
- 1 CAO
- 1 Industrial Chief Scientist
- 1 University Provost or President with Scientific/Engineering Credentials
- 1 International Lab Director
- Chairs of the Outstanding Science and Technology Peer Review and of the Quality of Business and Administrative Practices Peer Review.

Prior to the selection of the panel members, the composition of the panel may be adjusted, by mutual agreement of SURA and DOE, to match the programs and activities of the Laboratory and the special circumstances to be addressed by the review.

Note: This review was held in FY96 and again in FY98. The score achieved in FY96 was carried forward to FY97 and included in the FY97 performance evaluation calculation. The score achieved in FY98 was carried forward to FY99 and included in the FY99 performance evaluation calculation. The score received in the FY00 review will be carried forward and included in the FY01 performance evaluation calculation.

# **2**060

# 7B. Performance Evaluation Plan

# Peer Review Criteria:

#### Strategic Planning: (40%)

- Responsiveness to national scientific and technical priorities, to the DOE Strategic Plan and other DOE guidance, and to user community requirements in the development of the Jefferson Lab scientific program. Also includes "institutional citizenship" within the DOE lab system and with respect to the state and local communities.
- Identification and cultivation of core competencies that eliminate unnecessary duplication and overlap in advancing the national/international knowledge and resource base.
- Leadership on national/international scale in mission related competencies.

#### Managerial Effectiveness: (40%)

- Cost effective use of available resources to optimize benefits for the nation's scientific agenda.
- Consistently meets or exceeds established commitments
- Responsible programmatic, EH&S and administrative balance
- Cost reductions through process improvement and reengineering

#### **Organizational Culture (20%)**

- Advocacy of quality principles to enhance staff performance
- Open, accurate, timely internal and external communications, including communications with the state and local communities
- Promotes diversity
- Sustained high morale and productivity

# Spallation Neutron Source 8A. Overview

**Objective**: Contribute effectively to the successful design and construction of the Spallation Neutron Source (SNS) at ORNL.

Key Indicator (30 points):

8.0 Schedule performance on the SNS project.

# 8B. Performance Evaluation Plan

#### Introduction

Jefferson Lab has joined several other national labs in an important DOE initiative—the design and construction of the Spallation Neutron Source (SNS) at ORNL. As a partner in the SNS project, JLab will contribute its significant expertise in SRF technology while continuing to develop and refine that expertise in preparation for other projects, including the planned 12GeV upgrade. Specifically, JLab is responsible for designing, prototyping, constructing, and performing project management for the superconducting proton linac for the SNS. To ensure this project is successful, JLab must collaborate effectively with project partners, including LANL—who is responsible for providing the accelerator physics and RF for the SNS linac.

8.0 Schedule performance on the SNS project. [30 points]

#### Methodology

Specific milestones will be selected after the most recent SNS Construction Project Review for the purpose of measuring JLab contract performance, as mutually agreed by the DOE Contracting Officer and the JLab SNS Project Manager. The metric will measure the average completion of the selected milestones at the mid-point and end of the fiscal year for which they were selected.

# Scoring

The percentage of available points earned shall be numerically equal to 100 plus 10 times the number of months (including fractions thereof) that the average completion of the selected milestones is ahead. The result will be constrained to lie between 0 and 100. For the mid-year score, the coefficient shall be 20 rather than 10. The Contracting Officer may make allowance for project plan changes and/or schedule adjustments associated with causes beyond JLab's control.

Performance Level	Adjectival Rating	% of Assigned Points
Ahead of or on schedule, or behind schedule by not more than one month	Outstanding	90 to 100
Behind schedule by more than 1 month but not more than 2 months	Excellent	80 to < 90
Behind schedule by more than 2 months but not more than 3 months	Good	70 to < 80
Behind schedule by more than 3 months but not more than 4 months	Marginal	60 to < 70
Behind schedule by more than 4 months but not more than 5 months	Unsatisfactory (Passing)	50 to < 60
Behind schedule by more than 5 months	Unsatisfactory (Failing)	0 to < 50

AAAFNINAAFNITA	PIEGATONNO	O FEELOTING DATE	IA DECLUSITION/DUDGUAGE DEC NO. IS BECUES	T NO. (If applicable)
. AMENDMENT/MO		3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO. 5. PROJECT	NO. (If applicate)
. ISSUED BY	A200 COD	See Block 16C	7. ADMINISTERED BY (If other than Item 6) CODE	
J.S. Department	of Energy		1	
JNAF Site Office	<b>~</b> -			
2000 Jefferson A		•		
lewport News, V	A 23606 RESS OF CONTRACTOR (No., stree	et county State and 7IP Code)	(X) J9A. AMENDMENT OF SOLICIA	ATION NO.
	versities Research Association			
200 New York A	venue. NW	•		
Vashington, D.C.			9B. DATED (SEE ITEM 11)	
			124 MORE 10 170 MO	iThe exiconce No.
			TOA, MODIFICATION OF CON	THACI/ORDER NO.
			DE-AC05-84ER40150 10B, DATED (SEE ITEM 11)	
			X TOB. BATES (SEET/EM T)	
ODE		FACILITY CODE	August 3, 1984	
	11. THIS	ITEM ONLY APPLIES TO	AMENDMENTS OF SOLICITATIONS	
our desire to charq nendment, and is	ge an offer already submitted, such received prior to the opening hour a	change may be made by telegram and date specified.	ndment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO ECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by vior letter, provided each telegram or letter makes reference to the	
our desire to chark mendment, and is 2. ACCOUNTING	ge an offer already submitted, such received prior to the opening hour a AND APPROPIRATION DATA (If rec. \$3,205,000	change may be made by telegram and date specified.	or letter, provided each telegram or letter makes reference to the	
our desire to chark mendment, and is 2. ACCOUNTING	ge an offer already submitted, such received prior to the opening hour a AND APPROPIRATION DATA (If rec \$3,205,000	change may be made by telegram and date specified.  quired)  M ONLY APPLIES TO MO		
our desire to chark mendment, and is 2. ACCOUNTING	ge an offer already submitted, such received prior to the opening hour a AND APPROPIRATION DATA (If rec \$3,205,000  13. THIS ITE IT MODIF	change may be made by telegram and date specified.  quired)  M ONLY APPLIES TO MO IES THE CONTRACT/ORD	or letter, provided each telegram or letter makes reference to the	e solicitation and this
cur desire to changemendment, and is  2. ACCOUNTING Increase  CHECK ONE A.  8.	ge an offer already submitted, such received prior to the opening hour a AND APPROPIRATION DATA (If rec \$3,205,000  13. THIS ITE IT MODIFICATION OF THE CHANGE ORDER IS ISSUED NO. IN ITEM 10A.  THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR	change may be made by telegram and date specified.  Quired)  M ONLY APPLIES TO MO IES THE CONTRACT/ORD  PURSUANT TO: (Specify authority  ACT/ORDER IS MODIFIED TO REFLETH IN ITEM 14, PURSUANT TO TI	DIFICATION OF CONTRACTS/ORDERS. ER NO. AS DESCRIBED IN ITEM 14. THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CO.  ECT THE ADMINISTRATIVE CHANGES (such as changes in payora AUTHORITY OF FAR 43.103(b).	e solicitation and this
our desire to chark mendment, and is  2. ACCOUNTING Increase  CHECK ONE A.  8.	ge an offer already submitted, such received prior to the opening hour a AND APPROPIRATION DATA (If rec. \$3,205,000  13. THIS ITE IT MODIF THIS CHANGE ORDER IS ISSUED NO. IN ITEM 10A.  THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR THIS SUPPLEMENTAL AGREEME	change may be made by telegram and date specified.  Quired)  M ONLY APPLIES TO MO IES THE CONTRACT/ORD  PURSUANT TO: (Specify authority  ACT/ORDER IS MODIFIED TO REFL  RTH IN ITEM 14, PURSUANT TO TI  NT IS ENTERED INTO PURSUANT	DIFICATION OF CONTRACTS/ORDERS.  ER NO. AS DESCRIBED IN ITEM 14.  THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CO  ECT THE ADMINISTRATIVE CHANGES (such as changes in paying AUTHORITY OF FAR 43.103(b).	e solicitation and this
CHECK ONE A.  B.  C.  X	ge an offer already submitted, such received prior to the opening hour a AND APPROPIRATION DATA (If rec. \$3,205,000  13. THIS ITE IT MODIF THIS CHANGE ORDER IS ISSUED NO. IN ITEM 10A.  THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR THIS SUPPLEMENTAL AGREEME	change may be made by telegram and date specified.  Quired)  M ONLY APPLIES TO MO IES THE CONTRACT/ORD  PURSUANT TO: (Specify authority  ACT/ORDER IS MODIFIED TO REFLETH IN ITEM 14, PURSUANT TO THE INT IS ENTERED INTO PURSUANT IS in accordance with Clause I.	DIFICATION OF CONTRACTS/ORDERS.  ER NO. AS DESCRIBED IN ITEM 14.  THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CO  ECT THE ADMINISTRATIVE CHANGES (such as changes in paying AUTHORITY OF FAR 43.103(b).	e solicitation and this
CHECK ONE A.  C. X  D.  C. IMPORTAN	ge an offer already submitted, such received prior to the opening hour a AND APPROPIRATION DATA (If rec. \$3,205,000  13. THIS ITE IT MODIFICATION OF THIS CHANGE ORDER IS ISSUED NO. IN ITEM 10A.  THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR THIS SUPPLEMENTAL AGREEMED Increase in obligation of fund OTHER (Specify type of modification).	change may be made by telegram and date specified.  Quired)  M ONLY APPLIES TO MO IES THE CONTRACT/ORD PURSUANT TO: (Specify authority  ACT/ORDER IS MODIFIED TO REFL TH IN ITEM 14, PURSUANT TO TI NT IS ENTERED INTO PURSUANT Is in accordance with Clause I is required to sign the	DIFICATION OF CONTRACTS/ORDERS. ER NO. AS DESCRIBED IN ITEM 14.  THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CO  ECT THE ADMINISTRATIVE CHANGES (such as changes in pay HE AUTHORITY OF FAR 43.103(b).  TO AUTHORITY OF:  "9 "Obligation of Funds."  S document and return ————————————————————————————————————	e solicitation and this
CHECK ONE A.  C. X  D.  C. IMPORTAN	ge an offer already submitted, such received prior to the opening hour a AND APPROPIRATION DATA (If rec. \$3,205,000  13. THIS ITE IT MODIFICATION OF THIS CHANGE ORDER IS ISSUED NO. IN ITEM 10A.  THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR THIS SUPPLEMENTAL AGREEMED Increase in obligation of fund OTHER (Specify type of modification).	change may be made by telegram and date specified.  Quired)  M ONLY APPLIES TO MO IES THE CONTRACT/ORD PURSUANT TO: (Specify authority  ACT/ORDER IS MODIFIED TO REFL TH IN ITEM 14, PURSUANT TO TI NT IS ENTERED INTO PURSUANT Is in accordance with Clause I ion and authority)  I is required to sign th (Organized by UCF section heading	DIFICATION OF CONTRACTS/ORDERS. ER NO. AS DESCRIBED IN ITEM 14.  THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CO  ECT THE ADMINISTRATIVE CHANGES (such as changes in pay HE AUTHORITY OF FAR 43.103(b).  TO AUTHORITY OF:  "9 "Obligation of Funds."  S document and return ————————————————————————————————————	DNTRACT ORDER
CHECK ONE A.  C. X  D.  C. IMPORTAN	ge an offer already submitted, such received prior to the opening hour a AND APPROPIRATION DATA (If rec. \$3,205,000  13. THIS ITE IT MODIFICATION OF THIS CHANGE ORDER IS ISSUED NO. IN ITEM 10A.  THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR THIS SUPPLEMENTAL AGREEMED Increase in obligation of fund OTHER (Specify type of modification).	change may be made by telegram and date specified.  Quired)  M ONLY APPLIES TO MO IES THE CONTRACT/ORD PURSUANT TO: (Specify authority  ACT/ORDER IS MODIFIED TO REFL TH IN ITEM 14, PURSUANT TO TI NT IS ENTERED INTO PURSUANT Is in accordance with Clause I is required to sign the	DIFICATION OF CONTRACTS/ORDERS. ER NO. AS DESCRIBED IN ITEM 14.  THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CO  ECT THE ADMINISTRATIVE CHANGES (such as changes in pay HE AUTHORITY OF FAR 43.103(b).  TO AUTHORITY OF:  "9 "Obligation of Funds."  S document and return ————————————————————————————————————	DNTRACT ORDER
CHECK ONE A.  C. X  D.  C. IMPORTAN	ge an offer already submitted, such received prior to the opening hour a AND APPROPIRATION DATA (If rec. \$3,205,000  13. THIS ITE IT MODIFICATION OF THIS CHANGE ORDER IS ISSUED NO. IN ITEM 10A.  THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR THIS SUPPLEMENTAL AGREEMED Increase in obligation of fund OTHER (Specify type of modification).	change may be made by telegram and date specified.  Quired)  M ONLY APPLIES TO MO IES THE CONTRACT/ORD PURSUANT TO: (Specify authority  ACT/ORDER IS MODIFIED TO REFL TH IN ITEM 14, PURSUANT TO TI NT IS ENTERED INTO PURSUANT Is in accordance with Clause I ion and authority)  I is required to sign th (Organized by UCF section heading	DIFICATION OF CONTRACTS/ORDERS. ER NO. AS DESCRIBED IN ITEM 14.  THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CO  ECT THE ADMINISTRATIVE CHANGES (such as changes in pay HE AUTHORITY OF FAR 43.103(b).  TO AUTHORITY OF:  "9 "Obligation of Funds."  S document and return ————————————————————————————————————	DNTRACT ORDER
check one A.  CHECK ONE A.  C.  X  D.  C.  IMPORTAN	ge an offer already submitted, such received prior to the opening hour a AND APPROPIRATION DATA (If rec. \$3,205,000  13. THIS ITE IT MODIFICATION OF THIS CHANGE ORDER IS ISSUED NO. IN ITEM 10A.  THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR THIS SUPPLEMENTAL AGREEMED Increase in obligation of fund OTHER (Specify type of modification).	change may be made by telegram and date specified.  Quired)  M ONLY APPLIES TO MO IES THE CONTRACT/ORD PURSUANT TO: (Specify authority  ACT/ORDER IS MODIFIED TO REFL TH IN ITEM 14, PURSUANT TO TI NT IS ENTERED INTO PURSUANT Is in accordance with Clause I ion and authority)  I is required to sign th (Organized by UCF section heading	DIFICATION OF CONTRACTS/ORDERS. ER NO. AS DESCRIBED IN ITEM 14.  THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CO  ECT THE ADMINISTRATIVE CHANGES (such as changes in pay HE AUTHORITY OF FAR 43.103(b).  TO AUTHORITY OF:  "9 "Obligation of Funds."  S document and return ————————————————————————————————————	DNTRACT ORDER
check one A.  CHECK ONE A.  C.  X  D.  C.  IMPORTAN	ge an offer already submitted, such received prior to the opening hour a AND APPROPIRATION DATA (If rec. \$3,205,000  13. THIS ITE IT MODIFICATION OF THIS CHANGE ORDER IS ISSUED NO. IN ITEM 10A.  THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR THIS SUPPLEMENTAL AGREEMED Increase in obligation of fund OTHER (Specify type of modification).	change may be made by telegram and date specified.  Quired)  M ONLY APPLIES TO MO IES THE CONTRACT/ORD PURSUANT TO: (Specify authority  ACT/ORDER IS MODIFIED TO REFL TH IN ITEM 14, PURSUANT TO TI NT IS ENTERED INTO PURSUANT Is in accordance with Clause I ion and authority)  I is required to sign th (Organized by UCF section heading	DIFICATION OF CONTRACTS/ORDERS. ER NO. AS DESCRIBED IN ITEM 14.  THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CO  ECT THE ADMINISTRATIVE CHANGES (such as changes in pay HE AUTHORITY OF FAR 43.103(b).  TO AUTHORITY OF:  "9 "Obligation of Funds."  S document and return ————————————————————————————————————	DNTRACT ORDER
check one A.  Increase  CHECK ONE A.  B.  C.  X  D.	ge an offer already submitted, such received prior to the opening hour a AND APPROPIRATION DATA (If rec. \$3,205,000  13. THIS ITE IT MODIFICATION OF THIS CHANGE ORDER IS ISSUED NO. IN ITEM 10A.  THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR THIS SUPPLEMENTAL AGREEMED Increase in obligation of fund OTHER (Specify type of modification).	change may be made by telegram and date specified.  Quired)  M ONLY APPLIES TO MO IES THE CONTRACT/ORD PURSUANT TO: (Specify authority  ACT/ORDER IS MODIFIED TO REFL TH IN ITEM 14, PURSUANT TO TI NT IS ENTERED INTO PURSUANT Is in accordance with Clause I ion and authority)  I is required to sign th (Organized by UCF section heading	DIFICATION OF CONTRACTS/ORDERS. ER NO. AS DESCRIBED IN ITEM 14.  THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CO  ECT THE ADMINISTRATIVE CHANGES (such as changes in pay HE AUTHORITY OF FAR 43.103(b).  TO AUTHORITY OF:  "9 "Obligation of Funds."  S document and return ————————————————————————————————————	DNTRACT ORDER
check one A.  CHECK ONE A.  C.  X  D.  C.  IMPORTAN	ge an offer already submitted, such received prior to the opening hour a AND APPROPIRATION DATA (If rec. \$3,205,000  13. THIS ITE IT MODIFICATION OF THIS CHANGE ORDER IS ISSUED NO. IN ITEM 10A.  THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR THIS SUPPLEMENTAL AGREEMED Increase in obligation of fund OTHER (Specify type of modification).	change may be made by telegram and date specified.  Quired)  M ONLY APPLIES TO MO IES THE CONTRACT/ORD PURSUANT TO: (Specify authority  ACT/ORDER IS MODIFIED TO REFL TH IN ITEM 14, PURSUANT TO TI NT IS ENTERED INTO PURSUANT Is in accordance with Clause I ion and authority)  I is required to sign th (Organized by UCF section heading	DIFICATION OF CONTRACTS/ORDERS. ER NO. AS DESCRIBED IN ITEM 14.  THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CO  ECT THE ADMINISTRATIVE CHANGES (such as changes in pay HE AUTHORITY OF FAR 43.103(b).  TO AUTHORITY OF:  "9 "Obligation of Funds."  S document and return ————————————————————————————————————	DNTRACT ORDER
check one A.  CHECK ONE A.  Increase  CHECK ONE A.  B.  C.  X  D.  E. IMPORTAN  14. DESCRIPTION	ge an offer already submitted, such received prior to the opening hour at AND APPROPIRATION DATA (If rec. \$3,205,000  13. THIS ITE IT MODIFICATION OF AND APPROPIRATION DATA (If rec. \$3,205,000  13. THIS ITE IT MODIFICATION IN ITEM 10A.  THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR THIS SUPPLEMENTAL AGREEME Increase in obligation of fund OTHER (Specify type of modification). The Contractor is not, of AMENDMENT/MODIFICATION of AMENDMENT/MODIFICATION.	change may be made by telegram and date specified.  Quired)  M ONLY APPLIES TO MO IES THE CONTRACT/ORD PURSUANT TO: (Specify authority)  ACT/ORDER IS MODIFIED TO REFLECTH IN ITEM 14, PURSUANT TO TO INT IS ENTERED INTO PURSUANT IS in accordance with Clause I ion and authority)  I is required to sign the (Organized by UCF section heading SEE FOLLOWING)	DIFICATION OF CONTRACTS/ORDERS. ER NO. AS DESCRIBED IN ITEM 14.  THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CO  ECT THE ADMINISTRATIVE CHANGES (such as changes in payora AUTHORITY OF FAR 43.103(b).  TO AUTHORITY OF:  9 "Obligation of Funds."  s document and return ————————————————————————————————————	ONTHACT ORDER
cur desire to changemendment, and is  2. ACCOUNTING Increase  CHECK ONE A.  B.  C.  X D.  E. IMPORTAN  14. DESCRIPTION	ge an offer already submitted, such received prior to the opening hour at AND APPROPIRATION DATA (If rec. \$3,205,000  13. THIS ITE IT MODIFICATION IN ITEM 10A.  THE CHANGE ORDER IS ISSUED NO. IN ITEM 10A.  THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR THIS SUPPLEMENTAL AGREEMED Increase in obligation of fund OTHER (Specify type of modification).  THE CONTRACTOR IS IS NOT, OF AMENDMENT/MODIFICATION of the property	change may be made by telegram and date specified.  Quired)  M ONLY APPLIES TO MO IES THE CONTRACT/ORD PURSUANT TO: (Specify authority)  ACT/ORDER IS MODIFIED TO REFLECTH IN ITEM 14, PURSUANT TO TO INT IS ENTERED INTO PURSUANT IS in accordance with Clause I ion and authority)  I is required to sign the (Organized by UCF section heading SEE FOLLOWING)	DIFICATION OF CONTRACTS/ORDERS. ER NO. AS DESCRIBED IN ITEM 14.  THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CO  ECT THE ADMINISTRATIVE CHANGES (such as changes in pay HE AUTHORITY OF FAR 43.103(b).  TO AUTHORITY OF:  "9 "Obligation of Funds."  S document and return ————————————————————————————————————	ONTHACT ORDER  Ing office,
CHECK ONE A.  C. X  D.  E. IMPORTAN  14. DESCRIPTION	ge an offer already submitted, such received prior to the opening hour at AND APPROPIRATION DATA (If rec. \$3,205,000  13. THIS ITE IT MODIFICATION OF AND APPROPIRATION DATA (If rec. \$3,205,000  13. THIS ITE IT MODIFICATION IN ITEM 10A.  THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR THIS SUPPLEMENTAL AGREEME Increase in obligation of fund OTHER (Specify type of modification). The Contractor is not, of AMENDMENT/MODIFICATION of AMENDMENT/MODIFICATION.	change may be made by telegram and date specified.  Quired)  M ONLY APPLIES TO MO IES THE CONTRACT/ORD PURSUANT TO: (Specify authority)  ACT/ORDER IS MODIFIED TO REFLECTH IN ITEM 14, PURSUANT TO TO INT IS ENTERED INTO PURSUANT IS in accordance with Clause I ion and authority)  I is required to sign the (Organized by UCF section heading SEE FOLLOWING)	DIFICATION OF CONTRACTS/ORDERS. ER NO. AS DESCRIBED IN ITEM 14.  THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CO  ECT THE ADMINISTRATIVE CHANGES (such as changes in payora AUTHORITY OF:  9 "Obligation of Funds."  S document and return ————————————————————————————————————	ONTHACT ORDER  Ing office,
CHECK ONE A.  B.  C.  X  D.  E. IMPORTAN  14. DESCRIPTION	ge an offer already submitted, such received prior to the opening hour at AND APPROPIRATION DATA (If rec. \$3,205,000  13. THIS ITE IT MODIFICATION IN ITEM 10A.  THE CHANGE ORDER IS ISSUED NO. IN ITEM 10A.  THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR THIS SUPPLEMENTAL AGREEMED Increase in obligation of fund OTHER (Specify type of modification).  THE CONTRACTOR IS IS NOT, OF AMENDMENT/MODIFICATION of the property	change may be made by telegram and date specified.  Quired)  M ONLY APPLIES TO MO IES THE CONTRACT/ORD PURSUANT TO: (Specify authority)  ACT/ORDER IS MODIFIED TO REFLECTH IN ITEM 14, PURSUANT TO TO INT IS ENTERED INTO PURSUANT IS in accordance with Clause I ion and authority)  I is required to sign the (Organized by UCF section heading SEE FOLLOWING)	DIFICATION OF CONTRACTS/ORDERS. ER NO. AS DESCRIBED IN ITEM 14.  THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CO  ECT THE ADMINISTRATIVE CHANGES (such as changes in payorate Authority of FAR 43.103(b).  TO AUTHORITY OF:  "9 "Obligation of Funds."  S document and return ————————————————————————————————————	ONTHACT ORDER  Ing office,  The issuing office.
cur desire to changemendment, and is  2. ACCOUNTING Increase  CHECK ONE A.  B.  C.  X D.  E. IMPORTAN  14. DESCRIPTION	ge an offer already submitted, such received prior to the opening hour at the control of the opening hour at the control of th	change may be made by telegram and date specified.  Quired)  M ONLY APPLIES TO MO IES THE CONTRACT/ORD PURSUANT TO: (Specify authority)  ACT/ORDER IS MODIFIED TO REFLECTH IN ITEM 14, PURSUANT TO TO INT IS ENTERED INTO PURSUANT IS in accordance with Clause I ion and authority)  I is required to sign the (Organized by UCF section heading SEE FOLLOWING)	DIFICATION OF CONTRACTS/ORDERS. ER NO. AS DESCRIBED IN ITEM 14.  THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CO  ECT THE ADMINISTRATIVE CHANGES (such as changes in payora A or 10A, as heretofore changed, remains unchanged and in full 16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or	ONTHACT ORDER  Ing office,

NSN 7540-01-152-8070 Previous addition unusating eceived Time Feb. 6. 3:37PM STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243

02/06/01 15:33 P.005/007 Contract No. DE-AC05-84ER40150 Modification No. A200

Page 2 of 3

1. The amount obligated under this contract is increased by \$3,205,000.00 and is changed from \$1,062,637,670.15 to \$1,065,842,670.13. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Obligation of Funds. The amount presently obligated by the Government with respect to this contract is as follows:

Fund Type	B&R Code	Change	FY01	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KA043012	5,000.00	5,000.00	5,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	(13,000.00)	5,741,000.00	16,264,575.00
WA	KB0102011	(90,000.00)	40,849,000.00	120,584,411.00
WA	KB0102011 (AIP A001)	(3,000.00)	1,288,000.00	4,088,000.00
WA	KB0102011 (GPP)	(1,000.00)	299,000.00	1,829,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
· WA	KB0102012 (AIP A001)	0.00	0.00	0.00
WA	, KB0102012 (EQU)	(11,000.00)	4,890,000.00	19,658,398.00
WA	KB0102012 (01CG)	0.00	0.00	0.00
WA	KB0102012 (EQUEQU01CG)	(2,000.00)	1,016,000.00	1,016,000.00
WA	KB0102012	(40,000.00)	18,324,000.00 0.00	55,089,425.00 1,600,000.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,280,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,018,000.00
WA	KB0181020	. 0.00	0.00	5,772,000.00
WA	KB0181015	0.00 0.00	0.00	2,789,700.00
WA	KB0300000	(1,000.00)	542,000.00	1,662,000.00
WA	KB0301020	0.00	0.00	200,000.00
WA	KC0301030	0.00	0.00	653,176.00
YA	392100000 39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (67K203)	0.00	0.00	645,000.00
WA	35KB01000 (GFE300) 35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
YA	35KS01000 (Kecast K30102 EQO)	0.00	0.00	6,861.00
WA 4V	KT0101011	0.00	0.00	49,618.00
YA ·	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	100,000.00	175,600.00
WA	KP1402010 (EQU)	0.00	0.00	339,400.00
WA .	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
Ϋ́Α	KC0204010	0.00	0.00	11,943.00
ΥA	Received Time Feb. 6. 3:37PM	0.00	0.00	665,000.00

02/06/01 15:33 P.006/007

Contract No. DE-AC05-84ER40150 Modification No. A200

Page 3 of 3

Fund Type	B&R Code	Change	FY01	To Date
YA	KC0701030	0.00	0.00	5,000.00
ΥA	KT0101017	0.00	0.00	412,000.00
Ϋ́Α	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00	87,300.00
YA	WB0000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1 Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
	39WB00000 (INE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1Y	650102000 (AGR34-002) 650102000 (OP AGR00-004)	0.00	0.00	11,250.00
1Y	AT2540000	0.00	0.00	5,000.00
YA oz	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	40403309 (OF AGR27199MPHS058)	0.00	0.00	12,135.92
3T		0.00	0.00	9,029,126.21
3T	40403309 (OP AGR-00-F-0439)	0.00	0.00	420,346.00
YA	KJ0102000	0.00	0.00	50,909.00
WA	KJ0200000	0.00	0.00	100,000.00
WA	KJ0101030	0.00	0.00	599,853.00
TC	820101000 (OP)	0.00	0.00	0.00
TC	820201000 (OP)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER4015000019 CR40)		2,160,000.00	4,025,000.00
TC	820201000 (OP TSKER401501111J CR40)	660,000.00	12,520,000.00	22,452,000.00
TC	820201000 (OP TSKER40150TJAAA CR40)	2,270,000.00	0.00	957,864.00
TC	DP0404012 (OP)	0.00	0.00	644,134.00
TC	39DP04000	0.00	0.00	395,000.00
TC	39DP04040	0.00	160,000.00	160,000.00
TC	39DP08170	0.00	0.00	200,000.00
-2Y	600301010 (OP AGR98003105)	0.00	0.00	494,000.00
2Y	600305000 (OP AGR99W001)	0.00	6,000.00	20,000.00
2Y	600305000 (OP AGR2000W003)	0.00	0.00	5,000.00
2Y	600305000 (OP AGR2000W002)	0.00	13,934.06	90,000.00
2Y	600302000 (OP AGR2000W001)	0.00	0.00	98,652.00
SA	YN1901000	0.00	0.00	25,000.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	200,000.00
WA	KB0401022	0.00	387,000.00	387,000.00
WA	KB0401052	387,000.00	45,000.00	45,000.00
WA	KX0201000	45,000.00	0.00	0.00
WA	FS1000000	0.00	346,000.00	346,000.00
WA	FS1001100	(1,000.00)	• •	46,000.00
WA	FS1001500	0.00	46,000.00 100,000.00	100,000.00
WA	FS1005100	0.00	145,500.00	145,500.00
FG	GD0703000	0.00	145,500.00	115,000.00
FG	GD0703000 (EQU)	0.00		\$1,065,842,670.13
ru	TOTAL	\$3,205,000.00	\$89,098,434.06	\$1,000,042,070.10

<sup>2.</sup> All other terms and conditions of the contract remain unchanged and in full force and effect.

	MODIFICATION	OF CONTRACT		1 1 3
2. AMENDMENT/MODIFICAITON NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCH	ASE REQ. NO.	5. PROJECT NO. (If applicable)
A201	See Block 16C			
ISSUED BY CODE		7. ADMINISTERED BY (I	fother than Item 6)	CODE
S. Department of Energy			•	
NAF Site Office				
2000 Jefferson Avenue	•			
ewport News, VA 23606				).
NAME AND ADDRESS OF CONTRACTOR (No., street, co	ounty, State and ZIP Code)		(X) 9A. AMENDMENT	OF SOLICIATION NO.
outheastern Universities Research Association, Inc				
00 New York Avenue, NW		•	<u> </u>	
ashington, D.C. 20005			9B, DATED (SEE	TEM 11)
•		•	·	
				ION OF CONTRACT/ORDER NO.
		•	DE-AC05-84EI	
			X TOB. DATED (SEE	,
DDE FA	ACILITY CODE		August 3, 1984	<b>,</b>
	M ONLY APPLIES TO	AMENDMENTS OF		
ACCOUNTING AND APPROPIRATION DATA (If required Increase \$4,195,922,33	<b>.,</b>	•	,	
13. THIS ITEM O	ONLY APPLIES TO MOTHE CONTRACT/ORD	DER NO. AS DESCRI	BED IN ITEM 14.	
HECK ONE  A. THIS CHANGE ORDER IS ISSUED PURSONO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/appropriation date, etc.) SET FORTH II	THE CONTRACT/ORD SUANT TO: (Specify authority ORDER IS MODIFIED TO REFI N ITEM 14, PURSUANT TO T	DER NO. AS DESCRI	BED IN ITEM 14. H IN ITEM 14 ARE MADI E CHANGES (such as cha	E IN THE CONTRACT ORDER
HECK ONE  A. THIS CHANGE ORDER IS ISSUED PURE NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ appropriation date, etc.) SET FORTH II  C. THIS SUPPLEMENTAL AGREEMENT IS	THE CONTRACT/ORD SUANT TO: (Specify authority ORDER IS MODIFIED TO REFINITEM 14, PURSUANT TO T ENTERED INTO PURSUANT	DER NO. AS DESCRI  1) THE CHANGES SET FORT  LECT THE ADMINISTRATIV  HE AUTHORITY OF FAR 43  TO AUTHORITY OF:	BED IN ITEM 14. H IN ITEM 14 ARE MADI E CHANGES (such as cha. 103(b).	E IN THE CONTRACT ORDER
HECK ONE A. THIS CHANGE ORDER IS ISSUED PURSON. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ appropriation date, etc.) SET FORTH II  C. THIS SUPPLEMENTAL AGREEMENT IS  Increase in obligation of funds in a	THE CONTRACT/ORE SUANT TO: (Specify authority ORDER IS MODIFIED TO REFI N ITEM 14, PURSUANT TO T ENTERED INTO PURSUANT accordance with Clause I.	DER NO. AS DESCRI  1) THE CHANGES SET FORT  LECT THE ADMINISTRATIV  HE AUTHORITY OF FAR 43  TO AUTHORITY OF:	BED IN ITEM 14. H IN ITEM 14 ARE MADI E CHANGES (such as cha. 103(b).	E IN THE CONTRACT ORDER
HECK ONE  A. THIS CHANGE ORDER IS ISSUED PURE NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ appropriation date, etc.) SET FORTH II  C. THIS SUPPLEMENTAL AGREEMENT IS	THE CONTRACT/ORE SUANT TO: (Specify authority ORDER IS MODIFIED TO REFI N ITEM 14, PURSUANT TO T ENTERED INTO PURSUANT accordance with Clause I.	DER NO. AS DESCRI  1) THE CHANGES SET FORT  LECT THE ADMINISTRATIV  HE AUTHORITY OF FAR 43  TO AUTHORITY OF:	BED IN ITEM 14. H IN ITEM 14 ARE MADI E CHANGES (such as cha. 103(b).	E IN THE CONTRACT ORDER
HECK ONE  A. THIS CHANGE ORDER IS ISSUED PURSON. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/appropriation date, etc.) SET FORTH II  C. THIS SUPPLEMENTAL AGREEMENT IS  Increase in obligation of funds in a contract of the	THE CONTRACT/ORE SUANT TO: (Specify authority ORDER IS MODIFIED TO REFI N ITEM 14, PURSUANT TO TO ENTERED INTO PURSUANT accordance with Clause I. and authority)  is required to sign the	DER NO. AS DESCRI  THE CHANGES SET FORT  LECT THE ADMINISTRATIV  HE AUTHORITY OF FAR 43  TO AUTHORITY OF:  79 "Obligation of Funds."	BED IN ITEM 14. H IN ITEM 14 ARE MADI E CHANGES (such as cha. 103(b).	in the contract order inges in paying office,
HECK ONE  A. THIS CHANGE ORDER IS ISSUED PURSON. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/appropriation date, etc.) SET FORTH II  C. THIS SUPPLEMENTAL AGREEMENT IS  Increase in obligation of funds in a contract of the	THE CONTRACT/ORE SUANT TO: (Specify authority ORDER IS MODIFIED TO REFI N ITEM 14, PURSUANT TO T ENTERED INTO PURSUANT accordance with Clause I. ad authority)  is required to sign the	DER NO. AS DESCRI  THE CHANGES SET FORT  LECT THE ADMINISTRATIV HE AUTHORITY OF FAR 43 TO AUTHORITY OF:  79 "Obligation of Funds."  is document and ret  is, including solicitation/cont	BED IN ITEM 14. H IN ITEM 14 ARE MADI E CHANGES (such as cha. 103(b).	in the contract order inges in paying office,
HECK ONE  A. THIS CHANGE ORDER IS ISSUED PURSON. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/appropriation date, etc.) SET FORTH II  C. THIS SUPPLEMENTAL AGREEMENT IS  Increase in obligation of funds in a contract of the	THE CONTRACT/ORE SUANT TO: (Specify authority ORDER IS MODIFIED TO REFI N ITEM 14, PURSUANT TO TO ENTERED INTO PURSUANT accordance with Clause I. and authority)  is required to sign the	DER NO. AS DESCRI  THE CHANGES SET FORT  LECT THE ADMINISTRATIV HE AUTHORITY OF FAR 43 TO AUTHORITY OF:  79 "Obligation of Funds."  is document and ret  is, including solicitation/cont	BED IN ITEM 14. H IN ITEM 14 ARE MADI E CHANGES (such as cha. 103(b).	in the contract order
13. THIS ITEM OF IT MODIFIES  HECK ONE A. THIS CHANGE ORDER IS ISSUED PURSON. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ appropriation date, etc.) SET FORTH II  C. THIS SUPPLEMENTAL AGREEMENT IS  Increase in obligation of funds in a contract of the co	THE CONTRACT/ORE SUANT TO: (Specify authority ORDER IS MODIFIED TO REFI N ITEM 14, PURSUANT TO T ENTERED INTO PURSUANT accordance with Clause I. ad authority)  is required to sign the	DER NO. AS DESCRI  THE CHANGES SET FORT  LECT THE ADMINISTRATIV HE AUTHORITY OF FAR 43 TO AUTHORITY OF:  79 "Obligation of Funds."  is document and ret  is, including solicitation/cont	BED IN ITEM 14. H IN ITEM 14 ARE MADI E CHANGES (such as cha. 103(b).	in the contract order inges in paying office,
13. THIS ITEM OF IT MODIFIES  HECK ONE A. THIS CHANGE ORDER IS ISSUED PURSON. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ appropriation date, etc.) SET FORTH II  C. THIS SUPPLEMENTAL AGREEMENT IS  Increase in obligation of funds in a contract of the co	THE CONTRACT/ORE SUANT TO: (Specify authority ORDER IS MODIFIED TO REFI N ITEM 14, PURSUANT TO T ENTERED INTO PURSUANT accordance with Clause I. ad authority)  is required to sign the	DER NO. AS DESCRI  THE CHANGES SET FORT  LECT THE ADMINISTRATIV HE AUTHORITY OF FAR 43 TO AUTHORITY OF:  79 "Obligation of Funds."  is document and ret  is, including solicitation/cont	BED IN ITEM 14. H IN ITEM 14 ARE MADI E CHANGES (such as cha. 103(b).	in the contract order inges in paying office,
13. THIS ITEM OF IT MODIFIES  HECK ONE A. THIS CHANGE ORDER IS ISSUED PURSON. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ appropriation date, etc.) SET FORTH II  C. THIS SUPPLEMENTAL AGREEMENT IS  Increase in obligation of funds in a contract of the co	THE CONTRACT/ORE SUANT TO: (Specify authority ORDER IS MODIFIED TO REFI N ITEM 14, PURSUANT TO T ENTERED INTO PURSUANT accordance with Clause I. ad authority)  is required to sign the	DER NO. AS DESCRI  THE CHANGES SET FORT  LECT THE ADMINISTRATIV HE AUTHORITY OF FAR 43 TO AUTHORITY OF:  79 "Obligation of Funds."  is document and ret  is, including solicitation/cont	BED IN ITEM 14. H IN ITEM 14 ARE MADI E CHANGES (such as cha. 103(b).	in the contract order
13. THIS ITEM OF IT MODIFIES  HECK ONE A. THIS CHANGE ORDER IS ISSUED PURSON. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ appropriation date, etc.) SET FORTH II  C. THIS SUPPLEMENTAL AGREEMENT IS  Increase in obligation of funds in a contract of the co	THE CONTRACT/ORE SUANT TO: (Specify authority ORDER IS MODIFIED TO REFI N ITEM 14, PURSUANT TO T ENTERED INTO PURSUANT accordance with Clause I. ad authority)  is required to sign the	DER NO. AS DESCRI  THE CHANGES SET FORT  LECT THE ADMINISTRATIV HE AUTHORITY OF FAR 43 TO AUTHORITY OF:  79 "Obligation of Funds."  is document and ret  is, including solicitation/cont	BED IN ITEM 14. H IN ITEM 14 ARE MADI E CHANGES (such as cha. 103(b).	in the contract order
13. THIS ITEM OF IT MODIFIES  HECK ONE A. THIS CHANGE ORDER IS ISSUED PURSON. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ appropriation date, etc.) SET FORTH II  C. THIS SUPPLEMENTAL AGREEMENT IS  Increase in obligation of funds in a contract of the co	THE CONTRACT/ORE SUANT TO: (Specify authority ORDER IS MODIFIED TO REFI N ITEM 14, PURSUANT TO T ENTERED INTO PURSUANT accordance with Clause I. ad authority)  is required to sign the	DER NO. AS DESCRI  THE CHANGES SET FORT  LECT THE ADMINISTRATIV HE AUTHORITY OF FAR 43 TO AUTHORITY OF:  79 "Obligation of Funds."  is document and ret  is, including solicitation/cont	BED IN ITEM 14. H IN ITEM 14 ARE MADI E CHANGES (such as cha. 103(b).	in the contract order
13. THIS ITEM OF IT MODIFIES  HECK ONE A. THIS CHANGE ORDER IS ISSUED PURSON. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ appropriation date, etc.) SET FORTH II  C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in a D. OTHER (Specify type of modification as IMPORTANT: Contractor X is not,	THE CONTRACT/ORE SUANT TO: (Specify authority ORDER IS MODIFIED TO REFI N ITEM 14, PURSUANT TO T ENTERED INTO PURSUANT accordance with Clause I. ad authority)  is required to sign the	DER NO. AS DESCRI  THE CHANGES SET FORT  LECT THE ADMINISTRATIV HE AUTHORITY OF FAR 43 TO AUTHORITY OF:  79 "Obligation of Funds."  is document and ret  is, including solicitation/cont	BED IN ITEM 14. H IN ITEM 14 ARE MADI E CHANGES (such as cha. 103(b).	in the contract order inges in paying office,
HECK ONE  A. THIS CHANGE ORDER IS ISSUED PURSON. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/appropriation date, etc.) SET FORTH II  C. THIS SUPPLEMENTAL AGREEMENT IS  Increase in obligation of funds in a contract of the	THE CONTRACT/ORE SUANT TO: (Specify authority ORDER IS MODIFIED TO REFINITEM 14, PURSUANT TO TE ENTERED INTO PURSUANT accordance with Clause I. and authority)  Is required to sign the nized by UCF section heading SEE FOLLOWING	DER NO. AS DESCRI  THE CHANGES SET FORT  LECT THE ADMINISTRATIV HE AUTHORITY OF FAR 43 TO AUTHORITY OF:  "Obligation of Funds."  is document and return of the second of t	BED IN ITEM 14.  H IN ITEM 14 ARE MADI  E CHANGES (such as cha. 103(b).  Urn Cop  tract subject matter where	e in the contract order  Inges in paying office,  Dies to the issuing office.  In feasible.)
13. THIS ITEM O IT MODIFIES  HECK ONE  A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ appropriation date, etc.) SET FORTH II  C. THIS SUPPLEMENTAL AGREEMENT IS  X Increase in obligation of funds in a D. OTHER (Specify type of modification as  IMPORTANT: Contractor X is not,  DESCRIPTION OF AMENDMENT/MODIFICATION (Organication)  Compared to the contraction of the description of the descript	THE CONTRACT/ORE SUANT TO: (Specify authority ORDER IS MODIFIED TO REFINITEM 14, PURSUANT TO TE ENTERED INTO PURSUANT accordance with Clause I. and authority)  Is required to sign the nized by UCF section heading SEE FOLLOWING	DER NO. AS DESCRI  THE CHANGES SET FORT  LECT THE ADMINISTRATIV HE AUTHORITY OF FAR 43 TO AUTHORITY OF:  79 "Obligation of Funds."  is document and return of the content o	BED IN ITEM 14.  H IN ITEM 14 ARE MADI  E CHANGES (such as cha. 103(b).  Urn Cop  tract subject matter where	e in the contract order  Inges in paying office,  Dies to the issuing office.  In feasible.)
13. THIS ITEM O IT MODIFIES  CHECK ONE  A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ appropriation date, etc.) SET FORTH II  C. THIS SUPPLEMENTAL AGREEMENT IS  X Increase in obligation of funds in a	THE CONTRACT/ORE SUANT TO: (Specify authority ORDER IS MODIFIED TO REFINITEM 14, PURSUANT TO TE ENTERED INTO PURSUANT accordance with Clause I. and authority)  Is required to sign the nized by UCF section heading SEE FOLLOWING	DER NO. AS DESCRI  THE CHANGES SET FORT  LECT THE ADMINISTRATIV HE AUTHORITY OF FAR 43 TO AUTHORITY OF:  "Obligation of Funds."  is document and return of the second of t	BED IN ITEM 14.  H IN ITEM 14 ARE MADI  E CHANGES (such as cha. 103(b).  LITH ————————————————————————————————————	e in the contract order  Inges in paying office,  Dies to the issuing office.  In feasible.)
13. THIS ITEM O IT MODIFIES  HECK ONE  A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ appropriation date, etc.) SET FORTH II  C. THIS SUPPLEMENTAL AGREEMENT IS  X Increase in obligation of funds in a D. OTHER (Specify type of modification as  IMPORTANT: Contractor x is not,  DESCRIPTION OF AMENDMENT/MODIFICATION (Organical Computation)  DESCRIPTION OF AMENDMENT/MODIFICATION (Organical Computation)  Computation and conditions of the displacement of the displacemen	THE CONTRACT/ORE SUANT TO: (Specify authority ORDER IS MODIFIED TO REFINITEM 14, PURSUANT TO TE ENTERED INTO PURSUANT accordance with Clause I. and authority)  Is required to sign the nized by UCF section heading SEE FOLLOWING	DER NO. AS DESCRI  THE CHANGES SET FORT  LECT THE ADMINISTRATIV HE AUTHORITY OF FAR 43 TO AUTHORITY OF:  "Obligation of Funds."  is document and return of the second of t	BED IN ITEM 14.  H IN ITEM 14 ARE MADI  E CHANGES (such as cha. 103(b).  UTO CO  Tract subject matter where contracting Officer	e feasible.)  In the contract order  Inges in paying office,  Dies to the issuing office.  In the feasible office office office office.  In the contract order office offi
HECK ONE  A. THIS CHANGE ORDER IS ISSUED PURSON. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/appropriation date, etc.) SET FORTH II  C. THIS SUPPLEMENTAL AGREEMENT IS  Increase in obligation of funds in a condition of funds in a condition of funds in a condition of the contractor in the contractor	THE CONTRACT/ORE SUANT TO: (Specify authority ORDER IS MODIFIED TO REFINITEM 14, PURSUANT TO TE ENTERED INTO PURSUANT accordance with Clause I. and authority)  Is required to sign the nized by UCF section heading SEE FOLLOWING	DER NO. AS DESCRI  THE CHANGES SET FORT  LECT THE ADMINISTRATIV HE AUTHORITY OF FAR 43 TO AUTHORITY OF:  "Obligation of Funds."  is document and return of the second of t	BED IN ITEM 14.  H IN ITEM 14 ARE MADI  E CHANGES (such as cha. 103(b).  UTO CO  Tract subject matter where contracting Officer	e in the contract order inges in paying office,  Dies to the issuing office.

Contract No. DE-AC05-84ER40150 Modification No. A201 Page 2 of 3

1. The amount obligated under this contract is increased by \$4,195,922.33 and is changed from \$1,065,842,670.13 to \$1,070,038,592.46. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Obligation of Funds. The amount presently obligated by the Government with respect to this contract is as follows:

Fund Type	B&R Code	Change	FY01	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA .	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KA043012	0.00	5,000.00	5,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
·WA	KB0102000	0.00	0.00	249,512,000.00
• WA	KB0101021	0.00	5,741,000.00	16,264,575.00
WA	KB0102011	0.00	40,849,000.00	120,584,411.00
WA	KB0102011 (AIP A001)	0.00	1,288,000.00	4,088,000.00
WA	KB0102011 (GPP)	0.00	299,000.00	1,829,000.00
. WA	KB0102011 (EQU)	0.00	0.00	. 0.00
WA	KB0102012 (AIP A001)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	4,890,000.00	19,658,398.00
WA	KB0102012 (01CG)	0.00	0.00	0.00
WA	KB0102012 (EQUEQU01CG)	0.00	1,016,000.00	1,016,000.00
WÁ	KB0102012	0.00	18,324,000.00	55,089,425.00
WA ·	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	00.0	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	1,018,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	542,000.00	1,662,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	100,000.00	175,600.00
WA	KP1402010 (EQU)	0.00	0,00	339,400.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
ΥA	KC0204010	0.00	0.00	11,943.00

Contract No. DE-AC05-84ER40150 Modification No. A201. Page 3 of 3

	,		Page 3 of 3	-
Fund Type	B&R Code	Change	FY01	To Date
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00
YA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
ΥA	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00	87,300.00
YA	WB000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	- 0.00	0.00	80,100.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1Y	650102000 (OP AGR00-004)	0.00	0.00	
ΥA	AT2540000	0.00	0.00	11,250.00 5,000.00
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	40403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
3T	40403309 (OP AGR-00-F-0439)	0.00	0.00	9,029,126.21
3T	400403309 (AGRN0001401-F-0171)	4,195,922.33	4,195,922.33	4,195,922.33
Ϋ́Α	KJ0102000	0.00	0.00	
· WA	KJ0200000	0.00	0.00	420,346.00
WA	KJ0101030	0.00	0.00	50,909.00
TC	820101000 (OP)	0.00	0.00	100,000.00
TC	820201000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP TSKER4015000019)	0.00		0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OF TSKER40150113AAA)		0.00	0.00
TC	820201000 (OP TSKER40150011113) 820201000 (OP TSKER4015000019 CR40)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	0.00	(42,733.00)
TC	•	0.00	2,160,000.00	4,025,000.00
TC	820201000 (OP TSKER40150TJAAA CR40)	0.00	12,520,000.00	22,452,000.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000 39DP04040	0.00	0.00	644,134.00
		0.00	0.00	395,000.00
TC	39DP08170	0.00	160,000.00	160,000.00
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	0.00	494,000.00
2Y	600305000 (OP AGR2000W003)	0.00	6,000.00	20,000.00
2Y	600305000 (OP AGR2000W002)	0.00	0.00	5,000.00
2Y	600302000 (OP AGR2000W001)	0.00	13,934.06	90,000.00
SA	YN1901000	0.00	0.00	98,652.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	0.00	200,000.00
WA	KB0401052	0.00	387,000.00	387,000.00
WA	KX0201000	0.00	45,000.00	45,000.00
WA	FS1000000	0.00	0.00	0.00
WA	FS1001100	0.00	346,000.00	346,000.00
WA	FS1001500	0.00	46,000.00	46,000.00
WA	FS1005100	0.00	100,000.00	100,000,00
FG	GD0703000	0.00	145,500.00	145,500.00
<b>F</b> O	GD0703000 (EQU)	0.00	115,000.00	115,000.00
FG	GD0/03000 (EQU)	\$4,195,922.33	\$93,294,356.39	110,000.00

<sup>2.</sup> All other terms and conditions of the contract remain unchanged and in full force and effect.

AMENI	DMENT OF SOLICITATION/	MODIFICATION C	F CONTRACT	1. CONTRACT II	CODE	PAGE OF PAGES
. AMENDMEN	T/MODIFICAITON NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHA	ASE REQ. NO.	5. PROJEC	CT NO. (If applicble)
	A202	See Block 16C				
. ISSUED BY	CODE		7. ADMINISTERED BY (If	other than Item 6)	CODE	
J.S. Departm	ent of Energy		1			
ΓJNAF Site O	<b>.</b> .					
2000 Jeffers						
	/s, VA 23606 ADDRESS OF CONTRACTOR (No., street, co.	unty State and ZID Code)		(V) IQA AMEND	MENT OF SOLIC	CIATION NO
	Universities Research Association, Inc.	•		(X) 9A. AMEND	WENT OF BOLK	DATION NO.
	ork Avenue, NW					
				9B. DATED	(SEE ITEM 11)	
Vashington, I	D.C. 20005					
				10A. MODII	FICATION OF CO	NTRACT/ORDER NO.
				DE-AC05	-84ER40150	
				X 10B. DATE	) (SEE ITEM 11)	
ODE		CILITY CODE	AMENDA CE	August 3,		
	11. THIS ITEM	M ONLY APPLIES TO	AMENDMEN IS OF	SOLICITATION	NS	
The above	numbered solicitation is amended as set forti	h in Item 14. The hour and d	ate specified for receipt of (	Offers	is extended,	is not extended.
	knowledge receipt of this amendment prior to				following metho	ds:
	ng items 8 and 15, and returning	copies of the amendment; (b				
(c) By separa	ate letter or telegram which includes a referer	nce to the solicitation and ame	endment numbers. FAILUR	E OF YOUR ACKNO	WLEDGMENT T	O BE RECEIVED AT THE
our desire to c	NATED FOR THE RECEIPT OF OFFERS PRIOR change an offer already submitted, such change	ge may be made by telegram	or letter, provided each tele	egram or letter mak	es reference to t	he solicitation and this
nendment, ar	nd is received prior to the opening hour and d	ate specified.				
2. ACCOUNT	ING AND APPROPIRATION DATA (If required	1)				
Incre	ease \$3,775,897.31					
more	13. THIS ITEM O	NLY APPLIES TO MO	DIFICATION OF CO	NTRACTS/OR	DERS.	
	IT MODIFIES	THE CONTRACT/ORD	ER NO. AS DESCRI	BED IN ITEM	14.	
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURS	SUANT TO: (Specify authority	) THE CHANGES SET FORT	TH IN ITEM 14 ARE	MADE IN THE C	CONTRACT ORDER
	NO. IN ITEM 10A.					
	B. THE ABOVE NUMBERED CONTRACT/0	ORDER IS MODIFIED TO REFL	ECT THE ADMINISTRATIV	E CHANGES (such	as changes in pa	ying office,
	appropriation date, etc.) SET FORTH IN			3,103(b).		
	C. THIS SUPPLEMENTAL AGREEMENT IS			D	Oi	11 24 and Olavian II 22
X	Increase in obligation of funds in accor		bligation of Funds," and	Performance Me	asures Clause	H.31 and Clause H.32
	D. OTHER (Specify type of modification ar	nd authority)				
. IMPORT	「ANT: Contractor 💢 is not, 🔲	is required to sign th	is document and ret	urn ———	- copies to	the issuing office.
4 DESCRIPT	TON OF AMENDMENT/MODIFICATION (Organ	nized by UCF section heading	s. including solicitation/con	tract subject matter	where feasible.	)
4. DESCRIFT	ION OF AMERICATION TO A TOTAL TOTAL	SEE FOLLOWING	PAGES	•		
						*
Except as prov	vided herein, all terms and conditions of the d	locument referenced in Item 9	A or 10A, as heretofore ch	anged, remains und	hanged and in fu	all force and effect.
	AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE O	F CONTRACTING	OFFICER (Type o	r print)
			James W. Skinner, C			
15B. CONTRA	ACTOR/OFFEROR	15C. DATE SIGNED	16B, UNITED STATES OF	AMERICA		16C. DATE SIGNI
				Mune,		3-28-01
	Signature of person authorized to sign)	<del></del> 1	// (Signatu	ure of Contracting C	Officer)	1 " "

1. The amount obligated under this contract is increased by \$3,775,897.31 and is changed from \$1,070,038,592.46 to \$1,073,814,489.77. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Obligation of Funds. The amount presently obligated by the Government with respect to this contract is as follows:

Fund Type	B&R Code	Change	FY01	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KA043012	0.00	5,000.00	5,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	0.00	5,741,000.00	16,264,575.00
WA	KB0102011	(250,000.00)	40,599,000.00	120,334,411.00
WA	KB0102011 (AIP A001)	0.00	1,288,000.00	4,088,000.00
WA	KB0102011 (GPP)	330,000.00	629,000.00	2,159,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP A001)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	4,890,000.00	19,658,398.00
WA	KB0102012 (01CG)	0.00	0.00	0.00
WA	KB0102012 (EQUEQU01CG)	0.00	1,016,000.00	1,016,000.00
WA	KB0102012	0.00	18,324,000.00	55,089,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	(80,000.00)	(80,000.00)	938,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	542,000.00	1,662,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
Ϋ́A	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	100,000.00	175,600.00
WA	KP1402010 (EQU)	0.00	0.00	339,400.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	K\/0101012	0.00	0.00	280,000.00
TF	KV0101012 KV0101014	0.00	0.00	612,000.00
YA	KC0204010	0.00	0.00	11,943.00
iA	1,00204010	<b></b>		•

Page 3 of 3

Fund Type	B&R Code	Change	FY01	To Date
YA	KC0702000	0.00	0.00	665,000.00
ΥA	KC0701030	0.00	0.00	5,000.00
ΥA	KT0101017	0.00	0.00	412,000.00
ΥA	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
ΥA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00	87,300.00
YA	WB0000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1Y	650102000 (OP AGR00-004)	0.00	0.00	11,250.00
ΥA	AT2540000	0.00	0.00	5,000.00
3Y	400412000 (AGRY10R133700)	42,456.31	42,456.31	42,456.31
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	40403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
3T	40403309 (OP AGR-00-F-0439)	0.00	0.00	9,029,126.21
3T	400403309 (AGRN0001401-F-0171)	0.00	4,195,922.33	4,195,922.33
YA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	50,000.00	50,000.00	150,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER401501111J CR40)	852,300.00	3,012,300.00	4,877,300.00
TC	820201000 (OP TSKER40150TJAAA CR40)	2,831,141.00	15,351,141.00	25,283,141.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	0.00	0.00	395,000.00
TC	39DP08170	0.00	160,000.00	160,000.00
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	0.00	494,000.00
2Y	600305000 (OP AGR2000W003)	0.00	6,000.00	20,000.00
2Y	600305000 (OP AGR2000W002)	0.00	0.00	5,000.00
2Y	600302000 (OP AGR2000W001)	0.00	13,934.06	90,000.00
SA	YN1901000	0.00	0.00	98,652.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	0.00	200,000.00
WA	KB0401052	0.00	387,000.00	387,000.00
WA	KX0201000	0.00	45,000.00	45,000.00
WA	FS1000000	0.00	0.00	0.00
WA	FS1001100	0.00	346,000.00	346,000.00
WA	FS1001500	0.00	46,000.00	46,000.00
WA	FS1005100	0.00	100,000.00	100,000.00
FG	GD0703000	0.00	145,500.00	145,500.00
FG	GD0703000 (EQU)	0.00	115,000.00	115,000.00
	TOTAL	\$3,775,897.31	\$97,070,253.70	\$1,073,814,489.77
	•			

15B. CONTRACTOR/OFFEROR		NT OF SOLICITA			JE CONTRACT				1	3
SUBJECT   S. Department of Energy   S. Dep	·		3. E	FECTIVE DATE	4. REQUISITION/PURCH.	ASE RE	Q. NO.	5. PROJEC	T NO. (If app	licble)
S. Department of Energy NAF Site Office  OWD Jefferson Avenue  wport News, V. A. 23606  NAME AND ADDRESS OF CORTRACTOR (No., street, county, State and ZIP Code)  Washington, D.C. 20005  AME STATE OF THE CODE OF			005	See Block 16C	7 ADMINISTEDED BY	f other	than Itans Cl	CODE		
NAF Site Office  000 Jefferson Avenue  1000 Jefferson Jefferson Jefferson  1000 Jefferson  10			L_		7. ADMINISTERED BY (I	r otner	tnan item 6)	CODE	Ĺ	
### ADMONDERS OF CONTRACTOR Rise, street, county, State and ZIP Code)  ### ADMONDERS OF CONTRACTOR Rise, street, county, State and ZIP Code)  ### ADMONDERS OF CONTRACTOR Rise, street, county, State and ZIP Code)  ### ADMONDERS OF CONTRACTOR Rise, street, county, State and ZIP Code)  ### ADMONDERS OF CONTRACTOR Rise, street, county, State and ZIP Code)  ### ADMONDERS OF CONTRACTOR Rise, street, county, State and ZIP Code)  ### ADMONDERS OF CONTRACTOR Rise, street, county, State and ZIP Code)  ### ADMONDERS OF CONTRACTOR Rise, street, county, State and ZIP Code)  ### ADMONDERS OF CONTRACTOR Rise, street, county, State and ZIP Code)  ### ADMONDERS OF CONTRACTOR Rise, street, county, State and ZIP Code)  ### ADMONDERS OF CONTRACTOR Rise, street, county, State and ZIP Code)  ### ADMONDERS OF CONTRACTOR Rise, street, county, State and ZIP Code)  ### ADMONDERS OF CONTRACTOR Rise STATES OF CONTRACTOR Rise STATES OF CONTRACTOR RISE STATES OF CONTRACTOR OF FROM Its AMERICAN OF CONTRACTOR RISE STATES OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR RISE STATES OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR RISE STATES OF CONTRACTOR OF FROM Its Institute under the state of Code and	Department of E	Energy								
AME AND ADDRESS OF CONTRACTOR Plag, street, country, State and ZIP Code)  AME AND ADDRESS OF CONTRACTOR Plag, street, country, State and ZIP Code)  AME AND ADDRESS OF CONTRACTOR Plag, street, country, State and ZIP Code)  AME AND ADDRESS OF CONTRACTOR Plag, street, country, State and ZIP Code)  AME AND ADDRESS OF CONTRACTOR Plag, street, country, State and ZIP Code)  AND New York Avenue, NW  shington, D.C. 20005  To AMENDMENT OF SOLICIATION NO.  TO New York Avenue, NW  shington, D.C. 20005  To AMENDMENT OF SOLICIATION NO.  TO AMENDMENT OF SOLICIATION NO.  AUgust 3, 1984  11, THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS  The above numbered solicitation is amendment prior to the hour end date specified in the solicitation or as avenaded, by one of the following methods: are must acknowledge receipt of this amendment prior to the hour end date specified in the solicitation or as avenaded, by one of the following methods: are must acknowledge receipt of this amendment on each copy of the offer subney of present prior to the prior to the prior which the sublectation or as avenaded, by one of the following methods: are must acknowledge receipt of this amendment on each copy of the offer subney of present prior and the sublectation or as avenaded, by one of the following methods: are must acknowledge receipt of this amendment on each copy of the offer subney of present prior and the subney of the subney o	F Site Office									
AME AND ADDRESS OF CONTRACTOR Rico, street, county, State and ZIP Code)   IX   JA. AMENCMENT OF SOLICIATION NO.	) Jefferson Ave	nue								
unbeastern Universities Research Association, Inc.  20 New York Avenue, NW  shington, D.C. 20005    Total Content of the Contract of Contract							•			
Shington, D.C. 20005    Sab. DATED (SEE ITEM 11)				State and ZIP Code)		(X)	9A. AMENDMEN	IT OF SOLICI	ATION NO.	
Shington, D.C. 20005    98. DATED (SECTION TITLE)   10A. MODIFICATION OF CONTRACT/ORDID DEACOS-84ER40150   10B. DATED (SECTION OF CONTRACT) (SECTION OF CONTRAC			ion, inc.			Ì				
IGA. MODIFICATION OF CONTRACT/ORDE   DE-ACGS-94/ER40150	•						9B. DATED (SEE	ITEM 11)		
DE-ACOS-84ER40150 T08. DATED ISELTEM T11  August 3, 1984  11. THIS TEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS  The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers  are must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:  by completing items 8 and 15, and returning	lington, D.C. Zi	0005				ļ				
The above numbered solicitation is amended as set forth in tom 14. The hour and date specified for receipt of Offers							10A. MODIFICA	TION OF CO	NTRACT/OR	DER NO.
The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers										
The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers						X	TOR' DA LED (SE	t ((EN 11)		
The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers			FACILITY	/ CODE		1	August 2 109	: <b>4</b>	•	
The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers  is extended, is not extended in the must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following menthods:  39 completing items 8 and 15, and returning  copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer subdivided in the solicitation of amendment numbers. FAILURE OF YOUR ACKNOWLEDGAMENT TO BE RECEIVED.  20 By separate latter or relegare which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGAMENT TO BE RECEIVED.  21 BY separate large an offer already submitted, such change may be made by telegaren or letter. provided each telegram or letter makes reference to the solicitation of endment, and is received prior to the opening hour and date specified.  22 ACCOUNTING AND APPROPRATION DATA (If required)  23 Increase \$44,328  23 THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS.  24 Increase ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS.  25 ITEM ONLY APPLIES TO MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.  26 INCREASE OF THE NOTIFIES THE CONTRACT ORDER NO. IN ITEM 14.  27 INCREASE OF THE NOTIFIES THE CONTRACT ORDER NO. AS DESCRIBED IN ITEM 14.  28 INCREASE OF THE NOTIFIES THE CONTRACT ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO AUTHORITY OF FAR 42, 103(b).  29 OTHER (Specify type of modification and authority)  20 OTHER (Specify type of modification and authority)  30 OTHER (Specify type of modification and authority)  31 Increase in obligation of funds in accordance with Clause 1.79 "Obligation of Funds."  32 DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  33 SEE FOLLOWING PAGES  34 AND TITLE OF SIGNER (Type or		11. TH	1		AMENDMENTS OF	SOL		· <del>-</del>		
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.  IECK ONE A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT OR NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43,103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  X. Increase in obligation of funds in accordance with Clause 1.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  IMPORTANT: Contractor  is not, is required to sign this document and return copies to the issuing DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES  cept as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and eff. A. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  16C. DATE SIGNED 198-PUNITED STATES OF MORENCA. 16C. E.	By separate letter E DESIGNATED F lesire to change a	or telegram which includes OR THE RECEIPT OF OFFER on offer already submitted, si	a reference to S PRIOR TO Thuch change ma	the solicitation and am HE HOUR AND DATE S y be made by telegran	endment numbers. FAILUF	RE OF Y	OUR ACKNOWLE	DGMENT TO	BE RECEIVE	ED AT THE
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.  HECK ONE A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT OR NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL ARREPEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  Increase in obligation of funds in accordance with Clause 1.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  IMPORTANT: Contractor X is not, is required to sign this document and return copies to the issuing.  DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES  Cooper as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort and the provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as here	CCOUNTING ANI	D APPROPIRATION DATA (II	required)						<del></del>	
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.  HECK ONE A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT OR NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL ARREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  IMPORTANT: Contractor X is not, I is required to sign this document and return copies to the issuing.  DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES  CORPT AS PROVIDED IN THE CONTRACTION OF CONTRACTING OFFICER (Type or print)  16A. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  16C. DATE SIGNED 16E/JUNITED STATES OF AMERICA.	Increase \$4	4.328								
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  X Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  IMPORTANT: Contractor X is not, is required to sign this document and return copies to the issuing.  DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES  Coept as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and efc.  SA. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  16C. DATE SIGNED  16C. DATE SIGNED		IT MOD	IFIES THE	CONTRACT/OR	DER NO. AS DESCR	IBED	IN ITEM 14.			
appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  X Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  IMPORTANT: Contractor X is not, is required to sign this document and return copies to the issuing including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES  EXCEPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES  EXCEPT AS Provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort in Item 9A or 10A, as heretofore changed, remains unchanged and in			JED PURSUAN	Γ TO: (Specify authorit	y) THE CHANGES SET FOR	TH IN I	TEM 14 ARE MA	DE IN THE CO	ONTRACT O	RDER
Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."    D. OTHER (Specify type of modification and authority)    IMPORTANT: Contractor   X   is not,   is required to sign this document and return   copies to the issuing	a	ppropriation date, etc.) SET	forth in Iten	1 14, PURSUANT TO	THE AUTHORITY OF FAR 4	VE CHA 3.103(	NGES (such as cl	hanges in pay	ying office,	
D. OTHER (Specify type of modification and authority)  IMPORTANT: Contractor  is not, is required to sign this document and return — copies to the issuing contract subject matter where feasible.)  DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES  Accept as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  15C. DATE SIGNED 16B. UNITED STATES OF MERICA 16C. D.										
DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES   Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort and an inferenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort and an inferenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort and an inference inferenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effort and inference in					Obligation of Funds.					
SEE FOLLOWING PAGES   Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and efforts. NAME AND TITLE OF SIGNER (Type or print)    James W. Skinner, Contracting Officer   15C. DATE SIGNED   16K UNITED STATES OF AMERICA   16C. D.			-							office.
xcept as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and ef 5A. NAME AND TITLE OF SIGNER (Type or print)    Tames W. Skinner, Contracting Officer   15C. DATE SIGNED   16B. UNITED STATES OF AMERICA   16C. D. 16B. UNITED STAT	ESCRIPTION OF	AMENDMENT/MODIFICATION	ON (Organized	by UCF section headin	gs, including solicitation/cor	ntract s	subject matter wh	ere feasible.)		
5A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  5B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICA  16C. D				SEE FOLLOWING	) I MOLO					
5A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICA										
5A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  5B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICA  16C. D										
5A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  5B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICA  16C. D										
5A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  5B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICA										
5A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  5B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICA										
James W. Skinner, Contracting Officer  58. CONTRACTOR/OFFEROR 15C. DATE SIGNED 16B. UNITED STATES OF AMERICA 16C. D				ent referenced in Item	9A or 10A, as heretofore c	hanged	, remains unchan	ged and in fu	III force and e	rifect.
5B. CONTRACTOR/OFFEROR 15C. DATE SIGNED 16B. UNITED STATES OF AMERICA 16C. D	NAME AND TIT	LE OF SIGNER (Type or print	t)		I DA, NAME AND THE	Ji- UU	TIMOTING OFFI	CELL LE YEO OF	· heart	
5B. CONTRACTOR/OFFEROR 15C. DATE SIGNED 16B. UNITED STATES OF AMERICA 16C. D					James W. Skinner (	Contra	cting Officer			
1	CONTRACTOR	OFFEROR		15C. DATE SIGNED					16C.	DATE SIG
Harle Williams 4-	. 55,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	. — — · · · ·		1	Janes Wic	Yu	nuls		4.	-30-

THE PARTY OF THE P

ţ...

(Signature of person authorized to sign)

1. The amount obligated under this contract is increased by \$44,328 and is changed from \$1,073,814,489.77 to \$1,073,858,817.77. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Obligation of Funds. The amount presently obligated by the Government with respect to this contract is as follows:

Fund Type	B&R Code	Change	FY01	To Date
TE	EW3110022	0.00	0.00	50,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KA043012	0.00	5,000.00	5,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000 `	0.00	0.00	249,512,000.00
WA	KB0101021	0.00	5,741,000.00	16,264,575.00
WA	KB0102011	0.00	40,599,000.00	120,334,411.00
WA	KB0102011 (AIP A001)	0.00	1,288,000.00	4,088,000.00
WA	KB0102011 (GPP)	0.00	629,000.00	2,159,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP Á001)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	4,890,000.00	19,658,398.00
WA	KB0102012 (01CG)	0.00	0.00	0.00
WA	KB0102012 (EQUEQU01CG)	0.00	1,016,000.00	1,016,000.00
WA	KB0102012	0.00	18,324,000.00	55,089,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	(00.000,08)	938,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	542,000.00	1,662,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	100,000.00	175,600.00
WA	KP1402010 (EQU)	0.00	0.00	339,400.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
YA	KC0204010	0.00	0.00	11,943.00

Fund Type	B&R Code	Change	FY01	To Date
YA	KC0702000			TO Date
YA	KC0701030	0.00	0.00	665,000.00
YA	KT0101017	0.00	0.00	5,000.00
YA	KT0101018	0.00	0.00	412,000.00
YA	KT0101019	0.00	0.00	31,350.00
YA	KT0101025	0.00	0.00	5,000.00
YA	KU0100000	0.00	0.00	9,702.00
YA	KT0201013	0.00	0.00	484,000.00
YA	WB0000000	0.00	0.00	87,300.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	650102000 (AGR94-002)	0.00	0.00	80,100.00
1Y	650102000 (OP AGR00-004)	0.00	0.00	253,469.00
ΥA	AT2540000	0.00	0.00	11,250.00
3Y	400412000 (AGRY1OR133700)	0.00	0.00	5,000.00
3T	400403309 (OP AGR000096)	0.00	42,456.31	42,456.31
3T	40403309 (OP AGR000098) 40403309 (OP AGR27199MPHS058)	0.00	0.00	11,744,355.00
3T	40403309 (OP AGR-00-F-0439)	0.00	0.00	12,135.92
3T	400403300 (ACDN0004404 F 0474)	0.00	0.00	9,029,126.21
YA	400403309 (AGRN0001401-F-0171) KJ0102000	0.00	4,195,922.33	4,195,922.33
WA	KJ0200000	0.00	0.00	420,346.00
WA	KJ0101030	0.00	0.00	50,909.00
TC		0.00	50,000.00	150,000.00
TC	820101000 (OP) 820201000 (OP)	0.00	0.00	599,853.00
TC		0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER401501111J CR40)	0.00	3,012,300.00	4,877,300.00
TC	820201000 (OP TSKER40150TJAAA CR40)	0.00	15,351,141.00	25,283,141.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	0.00	0.00	395,000.00
2Y	39DP08170	0.00	160,000.00	160,000.00
21 2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
21 2Y	600305000 (OP AGR99W001)	0.00	0.00	494,000.00
2Y	600305000 (OP AGR2000W003)	0.00	6,000.00	20,000.00
2 Y	600305000 (OP AGR2000W002)	0.00	0.00	5,000.00
	600302000 (OP AGR2000W001)	0.00	13,934.06	90,000.00
SA	YN1901000	0.00	0.00	98,652.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	0.00	200,000.00
WA	KB0401052	0.00	387,000.00	387,000.00
WA	KX0201000	0.00	45,000.00	45,000.00
WA	FS1000000	0.00	0.00	0.00
WA	FS1001100	0.00	346,000.00	346,000.00
WA	FS1001500	0.00	46,000.00	46,000.00
WA	FS1005100	0.00	100,000.00	100,000.00
TF	GD0703000	44,328.00	44,328.00	44,328.00
FG	GD0703000	0.00	145,500.00	145,500.00
FG	GD0703000 (EQU)	0.00	115,000.00	115,000.00
	TOTAL	\$44,328.00	\$97,114,581.70	\$1,073,858,817.77
				+ 1,010,000,011111

HIVILIE	MENT OF SOLICITATION	/MODIFICATION O	OF CONTRACT	1. CONTRACT ID CO	DE	PAGE	OF PAGES
	NT/MODIFICAITON NO.	3. EFFECTIVE DATE	14. REQUISITION/PURCHA	ASE REQ. NO.	5. PROJECT	NO (If an	1 1
2,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	M204	See Block 16C.	7. 1.2.30.011.011,7.011.011	102 1124, 110.	0.77100207	no. (ii ap	huchiei
6. ISSUED BY	CODE	COO DIOGRA 100.	7. ADMINISTERED BY (IF	other than item 6)	CODE	T	
U.S. Departn	nent of Energy		7			<u> </u>	
TJNAF Site (							
12000 Jeffer:							
	vs, VA 23606 ADDRESS OF CONTRACTOR (No., street, co	unter Chata and 7/B Code)		(X) 9A. AMENDMEN	T OF FOLICIA	TION NO	
	n Universities Research Association, Inc	••		(X) 9A. AMENDMEN	I OF SOLICIA	TION NO.	
		•	1				
	ork Avenue, NW			98. DATED (SEE	ITEM 11)		<del></del>
wasnington,	D.C. 20005						
				10A. MODIFICA	TION OF CON	TRACT/O	RDER NO.
				DE-AC05-84E	R40150		
				X 10B. DATED (SE	E ITEM 11)	•	
				<b>\</b>			
CODE	i	ACILITY CODE	A A A C NIC NA C NIC A C C	August 3, 198	4		
	11. THIS ITE	M ONLY APPLIES TO	AMENDMEN IS OF	SOLICITATIONS			
The above	e numbered solicitation is amended as set for	th in Item 14. The hour and d	ate specified for receipt of (	Offers is ext	ended,	is not ex	tended.
	cknowledge receipt of this amendment prior t				wing methods	::	
	ing items 8 and 15, and returning	copies of the amendment; (b					ubmitted;
/-\ D	lastan ar talanram which includes a refere	nge to the solicitation and am	endment numbers FAILUR	F OF YOUR ACKNOWLE	DOMENT TO	BE RECEIV	VED AT THE
31 4 AC DECIM	NATED FOR THE RECEIPT OF OFFERS PRIOF change an offer already submitted, such char	TO THE HOUR AND DATE SE	PECTEDED MAY RESULT IN E	KELIECTION OF YOUR O	·FFR IT DV VII	tue or mi	s amenoment
mendment, a	and is received prior to the opening hour and o	late specified.	V 8V	•			
	TING AND APPROPIRATION DATA (If require	d)					
12. ACCOUNT		u)					
	N/A	ONLY APPLIES TO MO	DIFICATION OF CO	NTRACTS/ORDER	RS.		
	IT MODIFIES	THE CONTRACT/ORD	ER NO. AS DESCRI	BED IN ITEM 14.			
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PUR	S'JANT TO: (Specify authority	) THE CHANGES SET FOR	H IN ITEM 14 ARE MAI	DE IN THE CO	NTRACT	ORDER
0112011 0112	NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT	ORDER IS MODIFIED TO REF	LECT THE ADMINISTRATIV	E CHANGES (such as ch	nanges in payi	ng office,	
	appropriation date, etc.) SET FORTH			,103(b).			
	C. THIS SUPPLEMENTAL AGREEMENT I						
X	In accordance with clause I.110 DEAI	R 970.5204-78 entitled "La	ws, Regulations, and DC	E Directives (June 19	97)"		
	D. OTHER (Specify type of modification a	and authority)					
					<u></u>		
F. IMPOR	TANT: Contractor 🔲 is not, 🗵	is required to sign th	nis document and ret	urn — 2 c	opies to th	e issuir	ng office.
	TION OF AMENDMENT/MODIFICATION (Org	<del></del> -			re feasible.)		
14. DESCRIP	TION OF AMENDMENT/MODIFICATION (Orgonse of this modification is to revise Appe	ndix E (DOE Directives) in	its entirety.	that adaptor matter than			
i. The balba							
		and in full force and offert	_				
2. All other t	terms and conditions remain unchanged	and in full force and effect	•				
2. All other t	terms and conditions remain unchanged	and it in toice and enect	•				
2. All other t	terms and conditions remain unchanged	and in full force and enect	•				
2. All other t	terms and conditions remain unchanged	and in this force and elect					
2. All other t	terms and conditions remain unchanged	and in this force and elect					
2. All other t	terms and conditions remain unchanged	and in this force and elect					
			9A or 10A, as heretofore ch	nanged, remains unchang	ged and in full	force and	effect.
Except as pro	ovided herein, all terms and conditions of the			nanged, remains unchang DF CONTRACTING OFFI	ged and in full CER (Type or I	force and	effect.
Except as pro	ovided herein, all terms and conditions of the AND TITLE OF SIGNER (Type or print)	document referenced in Item	9A or 10A, as heretofore ch	nanged, remains unchang OF CONTRACTING OFFI	ged and in full CER (Type or )	force and print)	effect.
Except as pro	ovided herein, all terms and conditions of the	document referenced in Item	9A or 10A, as heretofore ch 16A. NAME AND TITLE C James W. Skinner, C	ontracting Officer	ged and in full CER (Type or )		
Except as pro	ovided herein, all terms and conditions of the AND TITLE OF SIGNER (Type or print)  Jerry P. Draayer, President	document referenced in Item	9A or 10A, as heretofore ch	ontracting Officer	ged and in full CER (Type or )		effect.
Except as pro	ovided herein, all terms and conditions of the AND TITLE OF SIGNER (Type or print)	document referenced in Item	James W. Skinner, C	ontracting Officer	SETT(1,720 01.)		

NSN 7540-01-152-8070 Previous edition unusable STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243

A205 See Block 16C.  7. ADMINISTERIO BY 6f other than faum 5)  7. ADMINISTERIO BY 6f other than 6f o	AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE PAGE OF PAGE		OF PAGES		
J. SOUD BY  CODE  7. ADMINISTERIO BY (If other then lem 6)  CODE  7. ADMINISTERIO BY (If other then lem 6)  CODE  7. ADMINISTERIO BY (If other then lem 6)  CODE  7. ADMINISTERIO BY (If other then lem 6)  CODE  7. ADMINISTERIO BY (If other then lem 6)  CODE  7. ADMINISTERIO BY (If other then lem 6)  CODE  7. ADMINISTERIO BY (If other then lem 6)  CODE  7. ADMINISTERIO BY (If other then lem 6)  CODE  7. ADMINISTERIO BY (If other then lem 6)  CODE  7. ADMINISTERIO BY (If other then lem 6)  CODE  7. ADMINISTERIO BY (If other then lem 6)  CODE  7. ADMINISTERIO BY (If other then lem 6)  CODE  7. ADMINISTERIO BY (If other then lem 6)  CODE  7. ADMINISTERIO BY (If other then lem 6)  CODE  7. ADMINISTERIO BY (If other then lem 6)  CODE  7. ADMINISTERIO BY (If other then lem 6)  CODE  7. ADMINISTERIO BY (If other then lem 6)  CODE  7. ADMINISTERIO BY (If other then lem 6)  CODE  7. ADMINISTERIO BY (If other then lem 6)  7. ADMINISTERIO BY (If other lem 11)  8. THE CONTRACTION BY (If other lem 11)  8. THE CONTRACTION BY (If other lem 11)  8. THE ADMINISTERIO BY (If other lem	AMENDMENT/MODIFICATION NO.		4. REQUISITION/PURCH/	ASE REQ. NO.	5. PROJECT	TNO. (If a	oplicble)
IZONO Jefferson Avenue  Weeport News, V. 2, 2806  Ix RADIE AND ADDRESS OF CONTRACTOR INc., servet, county, State and ZIP Code)  Southeastern Universities Research Association, Inc.  IZON New York Avenue, NW  Washington, D.C. 20005  IT The above numbered solicitation is amended as set forth in tem 14. The hour and date specified for receipt of Offer  IT This ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS DE-ACOS-MERADISSO  The above numbered solicitation is amended as set forth in tem 14. The hour and date specified for receipt of Offer  IT The above numbered solicitation is amended as set forth in tem 14. The hour and date specified for receipt of Offer  IT The above numbered solicitation is amended as set forth in tem 14. The hour and date specified for receipt of Offer  IT The above numbered solicitation is amended as set forth in tem 14. The hour and date specified for receipt of Offer  IT The above numbered solicitation is amended as set forth in tem 14. The hour and date specified for receipt of Offer  IT The above numbered solicitation is amended as set forth in tem 14. The hour and date specified for receipt of Offer IT BERGET OFFER PRINTS OFFER PR		See block foc.	7. ADMINISTERED BY (If	other than Item 6)	CODE	7	·····
IZONO Jefferson Avenue  Weeport News, V. 2, 2806  Ix RADIE AND ADDRESS OF CONTRACTOR INc., servet, county, State and ZIP Code)  Southeastern Universities Research Association, Inc.  IZON New York Avenue, NW  Washington, D.C. 20005  IT The above numbered solicitation is amended as set forth in tem 14. The hour and date specified for receipt of Offer  IT This ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS DE-ACOS-MERADISSO  The above numbered solicitation is amended as set forth in tem 14. The hour and date specified for receipt of Offer  IT The above numbered solicitation is amended as set forth in tem 14. The hour and date specified for receipt of Offer  IT The above numbered solicitation is amended as set forth in tem 14. The hour and date specified for receipt of Offer  IT The above numbered solicitation is amended as set forth in tem 14. The hour and date specified for receipt of Offer  IT The above numbered solicitation is amended as set forth in tem 14. The hour and date specified for receipt of Offer  IT The above numbered solicitation is amended as set forth in tem 14. The hour and date specified for receipt of Offer IT BERGET OFFER PRINTS OFFER PR	U.S. Downston of English		1			L	· · · · · · · · · · · · · · · · · · ·
Name And Application of News, VA 28006	- · · · · · · · · · · · · · · · · · · ·						
NAME AND ADDRESS OF CONTRACTOR No., street, country, State and ZIP Code)	TJNAF Site Office						
EXAMPLANDADRESS OF CONTRACTOR Pilo., street, country, State and ZIP Code)  [20] New York Avenue, NW Washington, D.C. 20005  [36] DATED (SEE ITEM 11)  [36] DATED (SEE ITEM 11)  [37] The above numbered solicitation is amonded as set forth in Iron 14. The hour and date specified for receipt of 10°CPT  [38] The above numbered solicitation is amonded as set forth in Iron 14. The hour and date specified for receipt of 10°CPT  [38] The above numbered solicitation is amonded as set forth in Iron 14. The hour and date specified for receipt of 10°CPT  [38] Amendment of the sentended solicitation is amonded as set forth in Iron 14. The hour and date specified for receipt of 10°CPT  [39] Completing items 8 and 15, and returning copies of the amendment prior to the hour and date specified in the solicitation or as amonded, by one of the following membrade: ability completing items 8 and 15, and returning copies of the amendment prior to the hour and date specified in the solicitation or as amonded, by one of the following membrade: ability completing items 8 and 15, and returning copies of the amendment prior to the following membrade: ability completing items 8 and 15, and returning copies of the amendment prior to the selection of as amended, by one of the following membrade: ability complete or telligram which includes a reference to the selection of the selection of as amended, by one of the following membrade: ability complete or telligram which includes a reference to the selection of the selection of the date amendment of the other selection of the other selection of the other selection of the other selection of the selection of the selection of the date amendment of the other selection of the	12000 Jefferson Avenue						
Southeastern Universities Research Association, Inc.    200 New York Avenue, NW   Washington, D.C. 20005							····
Section   Sect	NAME AND ADDRESS OF CONTRACTOR (No., street, co	ounty, State and ZIP Code)		(X) 9A. AMENDMEN	T OF SOLICIA	ATION NO	•
Vashington, D.C. 20005    September   Pacility Code   Pacility	Southeastern Universities Research Association, Inc						
Total Model   Total	200 New York Avenue, NW			OR DATED (SEE	(TEM 44)		
DE-AC05-84ER40150    Time above numbered solicitation is amended as set forth in Itam 14. The hour and date specified for receipt of Offers   Time above numbered solicitation is amended as set forth in Itam 14. The hour and date specified for receipt of Offers   Time above numbered solicitation is amended as set forth in Itam 14. The hour and date specified for receipt of Offers   is extended,   is not extended.   If not extended, there is a set of the set o	Vashington, D.C. 20005		·	BR. DATED (SEE	IIEXVI III		
DE-ACC6-84ER40150 T08. DATED (SECTIFATT)  August 3, 1984  11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS  The above numbered solicitation is amended as set tent in Item 14. The hour and date specified in the solicitation of as amended, by one of the following methods:  (first must ecknowledge receipt of this amendment prior to the hour and date specified in the solicitation of as amended, by one of the following methods:  (filed Se specified time 8 and 15, and seturatingcopies of the amendment; bit by be provided for receipt of offers		•		104 MODIFICAT	TION OF COM	ITPACT/O	BOER NO
Title above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers						TITACI/O	NDEN NO.
August 3, 1984  T1. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS  The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers  is extended. In not extended. Items must exknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:  (IN) completing items 8 and 15, and returning				TOP DATED (SE			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS  The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers				X TOD. DATED (OC.	L 17 L 11 1 1 1 1		
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS  The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers	ODE IE	ACILITY CODE		August 2 100	<b>A</b> .		
The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers			AMENDMENTS OF				
These must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:	11. 71110 11.	III OILET / II TEILEG TO	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Ters must exhawledge receipt of this amendment prior to the hour and date apacified in the solicitation or as amended, by one of the following methods:  By completing items 8 and 15, and returning	The above numbered solicitation is amended as set for	th in Item 14. The hour and d	ate specified for receipt of	Offers Lisext	ended,	_isnote:	xtended.
By completing items 8 and 15, and returningcopies of the amendment, bil By extraveledging receipt of this amendment on each copy of the offer submitted (c) By separate letter or telegram which includes a reference to the solicitation and a general cities of the complex					wing method	8:	
(c) Dit apparate letter or telegram which includes a reference to the solicitation and amendment numbers. FALLIRE OF YOUR PACKNOWLEDGMENT TO BE RECEIVED AT ACE DESIGNATED FOR THE RECEIVED AT THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. It by victure of this amendment and it is received prior to the opening hour and sites specified.  P. ACCOUNTING AND APPROPRATION DATA (if required)  Increase \$1,995,567  13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS.  IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.  CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SCT FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERD INTO PURSUANT TO AUTHORITY OF:  X Increase in obligation of funds in accordance with Clause 1.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  IMPORTANT: Contractor I is not, is required to sign this document and return 2 copies to the issuing office.  SEE FOLLOWING PAGES  XXOPPL as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  5A. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  15C. DATE SIGNED  16C. DATE SIGNED  16C. DATE SIGNED	ters must acknowledge receipt of this amendment prior t						
ACE DESIGNATED FOR THE RECEPT OF OFFERS PINT OF THE HOUR AND DATE SPECIFIED MAY RESOLVE IN ROCK. IT WAS ALL US desired to change and offer aftered such change may be made by telegram or letter, provided each telegram or letter makes reference to the sell-disation and by telegram or letter, provided each telegram or letter makes reference to the sell-disation and by telegram or letter, provided each telegram or letter makes reference to the sell-disation and by telegram or letter, provided each telegram or letter makes reference to the sell-disation and by telegram or letter, provided each telegram or letter makes reference to the sell-disation and by telegram or letter, provided each telegram or letter makes reference to the sell-disation and by telegram or letter, provided each telegram or letter makes reference to the sell-disation and by telegram or letter, provided each telegram or letter makes reference to the sell-disation and by telegram or letter, provided each telegram or letter makes reference to the sell-disation and sell-disation or letter, provided each telegram or letter makes reference to the sell-disation and sell-disation or letter, provided each telegram or letter makes reference to the sell-disation and sell-disation or letter, provided each telegram or letter makes reference to the sell-disation and sell-disation or letter. The ADMINISTRATIVE CHANGES (such as Changes in the CONTRACT ORDER IN THE AUTHORITY OF FAR AS 103 lb).  3. THE ABOVE NUMBERED CONTRACTORORER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO AUTHORITY OF FAR AS 103 lb).  3. THE ABOVE NUMBERED CONTRACTORORER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO AUTHORITY OF FAR AS 103 lb).  3. THE ABOVE NUMBERED CONTRACTORORER IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR AS 103 lb).  3. THE ABOVE NUMBERED CONTRACTORORER IN ITEM 14, PURSUANT	By completing items 8 and 15, and returning						
ACE DESIGNATED FOR THE RECEPT OF OFFERS PINT OF THE HOUR AND DATE SPECIFIED MAY RESOLVE IN ROCK. IT WAS ALL US desired to change and offer aftered such change may be made by telegram or letter, provided each telegram or letter makes reference to the sell-disation and by telegram or letter, provided each telegram or letter makes reference to the sell-disation and by telegram or letter, provided each telegram or letter makes reference to the sell-disation and by telegram or letter, provided each telegram or letter makes reference to the sell-disation and by telegram or letter, provided each telegram or letter makes reference to the sell-disation and by telegram or letter, provided each telegram or letter makes reference to the sell-disation and by telegram or letter, provided each telegram or letter makes reference to the sell-disation and by telegram or letter, provided each telegram or letter makes reference to the sell-disation and by telegram or letter, provided each telegram or letter makes reference to the sell-disation and sell-disation or letter, provided each telegram or letter makes reference to the sell-disation and sell-disation or letter, provided each telegram or letter makes reference to the sell-disation and sell-disation or letter, provided each telegram or letter makes reference to the sell-disation and sell-disation or letter. The ADMINISTRATIVE CHANGES (such as Changes in the CONTRACT ORDER IN THE AUTHORITY OF FAR AS 103 lb).  3. THE ABOVE NUMBERED CONTRACTORORER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO AUTHORITY OF FAR AS 103 lb).  3. THE ABOVE NUMBERED CONTRACTORORER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO AUTHORITY OF FAR AS 103 lb).  3. THE ABOVE NUMBERED CONTRACTORORER IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR AS 103 lb).  3. THE ABOVE NUMBERED CONTRACTORORER IN ITEM 14, PURSUANT	(c) By separate letter or telegram which includes a refere	nce to the solicitation and amo	endment numbers. FAILUR	E OF YOUR ACKNOWLE	DGMENT TO	BE RECEI	VED AT THE
2. ACCOUNTING AND APPROPRATION DATA (If required) Increase \$1,995.567  13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14. CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO RELECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, spepropriation date, sto.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL ADREEMENT IS BRIEFED INTO PURSUANT TO AUTHORITY OF FAR 43.103(b).  X. Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  IMPORTANT: Contractor  is not, is required to sign this document and return  2 copies to the issuing office. 4. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES  EXCEPT AS PROVIded herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  5A. NAME AND TITLE OF SIGNER (Type or print)  16B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. CONTRACTOR/OFFEROR							
P. ACCOUNTING AND APPROPIRATION DATA (If required) Increase \$1,995,567  13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.  CHECK ONE  A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF FAR 43.103(b).  Z. THICABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO AUTHORITY OF FAR 43.103(b).  Z. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  INCREASE IN OBJUSTICAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  INCREASE IN OBJUSTICAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  INCREASE IN OBJUSTICAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  INCREASE IN OBJUSTICAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  INCREASE IN OBJUSTICAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  INCREASE IN OBJUSTICAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  INCREASE IN OBJUSTICAL AGREEMENT IS ENTERED INTO PURSUANT TO THE AUTHORITY OF:  A DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES  EXCEPT AGREEMENT AGREEMENT IS THE CONTRACTING OFFICER (Type or print)  INCREASE IN OBJUSTICAL AGREEMENT IS THE CONTRACTING OFFICER (Type or print)  JAMES AND TITLE OF CONTRACTING OFFICER (Type or print)  JAMES W. Skinner, Contracting Officer  15C. DATE SIGNED  15C. DATE SIGNED  16C. DATE SIGNED  1	our desire to change an offer already submitted, such chain nendment, and is received prior to the opening hour and o	nge may be made by telegram late specified.	or letter, provided each tel	Sign of ferrer makes is	IOIOINCO LO UN	o appoint	AI die bie
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS.  IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.  CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.  B. THIS ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  X Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  IMPORTANT: Contractor X is not, I is required to sign this document and return 2 copies to the issuing office.  SEE FOLLOWING PAGES  EXCEPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES  EXCEPT AS PROVIDED IN THE CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  15C. DATE SIGNED  16B. CONTRACTOR/OFFEROR  16C. DATE SIGNED	indication, and it reads to produce product to the second	•					
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.  CHECK ONE  A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  IMPORTANT: Contractor  is required to sign this document and return	2. ACCOUNTING AND APPROPIRATION DATA (If require	d)					
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.  CHECK ONE  A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  IMPORTANT: Contractor  is required to sign this document and return	Increase \$1,995,567						
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.  CHECK ONE  A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14. ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  IMPORTANT: Contractor  is not,  is required to sign this document and return	13 THIS ITEM (	ONLY APPLIES TO MO	DIFICATION OF CO	NTRACTS/ORDER	RS.		
NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  X Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  E. IMPORTANT: Contractor X is not, is required to sign this document and return 2 copies to the issuing office.  4. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES  Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  16A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  16C. DATE SIGNED  16B. CONTRACTOR/OFFEROR  16C. DATE SIGNED  16C. DATE SIGNED  16C. DATE SIGNED	IT MODIFIES	THE CONTRACT/ORD	ER NO. AS DESCRI	BED IN ITEM 14.			
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  X Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  E. IMPORTANT: Contractor X is not, I is required to sign this document and return Copies to the issuing office in the interval of the issuing office in the issuing office in the interval of the issuing of the	CHECK ONE A. THIS CHANGE ORDER IS ISSUED PUR	SUANT TO: (Specify authority	) THE CHANGES SET FORT	H IN ITEM 14 ARE MAD	DE IN THE CO	NTRACT	ORDER
appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  E. IMPORTANT: Contractor  is not, is required to sign this document and return	NO. IN ITEM 10A.						•
appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  X Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  E. IMPORTANT: Contractor  is required to sign this document and return  copies to the issuing office.  4. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES  Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  15A. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  15C. DATE SIGNED 16B. (NITED STATES) OF AMERICA. 16C. DATE STATES OF AMERIC			•				
appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  X Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  E. IMPORTANT: Contractor X is not, is required to sign this document and return copies to the issuing office.  4. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES  Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  15A. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  15C. DATE SIGNED 16B. (NITED STATES OF AMERICA)  16C. DATE SIGNED	R THE AROVE NUMBERED CONTRACT	ORDER IS MODIFIED TO REFI	LECT THE ADMINISTRATIV	E CHANGES (such as ch	anges in pay	ing office,	
Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."   D. OTHER (Specify type of modification and authority)	appropriation date, etc.) SET FORTH	N ITEM 14, PURSUANT TO T	HE AUTHORITY OF FAR 43	.103(b).			
D. OTHER (Specify type of modification and authority)  E. IMPORTANT: Contractor  is not,  is required to sign this document and return	C. THIS SUPPLEMENTAL AGREEMENT IS	S ENTERED INTO PURSUANT	TO AUTHORITY OF:				
D. OTHER (Specify type of modification and authority)  E. IMPORTANT: Contractor  is not,  is required to sign this document and return	X Increase in obligation of funds in acco	rdance with Clause 1.79 °C	bligation of Funds."				
EXCEPT AS PROVIDED TITLE OF SIGNER (Type or print)  ISB. CONTRACTOR/OFFEROR  IS not, is required to sign this document and return							
4. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES  Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  ISA. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  15C. DATE SIGNED  16C. DATE SIGNED							
4. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES  Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  ISA. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  15C. DATE SIGNED  16C. DATE SIGNED				2			
SEE FOLLOWING PAGES  Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  5A. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  15C. DATE SIGNED  16B. CONTRACTOR/OFFEROR  16C. DATE SIGNED	. IMPORTANT: Contractor 💢 is not, 🗌	is required to sign th	is document and ret	urn ———— co	opies to th	ne issuir	ig office.
SEE FOLLOWING PAGES  Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  15A. NAME AND TITLE OF SIGNER (Type or print)  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. CONTRACTOR/OFFEROR  16C. DATE SIGNED	A MENDALISMENT MODIFICATION (Oct.)	nizad by LICE section heading	s including solicitation/con	tract subject matter whe	re feasible.)		
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  15A. NAME AND TITLE OF SIGNER (Type or print)  16B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. CONTRACTOR/OFFEROR  16C. DATE	4. DESCRIPTION OF AMENUMEN I/MODIFICATION (OIG	SEE FOLLOWING PAGES	3				
16A. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  16C. DATE SIGNED					•		
James W. Skinner, Contracting Officer  156. DATE SIGNED  167. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  168. CONTRACTOR/OFFEROR  160. DATE SIGNED							
5A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  16C. DATE SIGNED  16C. DATE SIGNED							
5A. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  16C. DATE SIGNED  16B. CONTRACTOR/OFFEROR  16C. DATE SIGNED							
5A. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  16C. DATE SIGNED  16B. CONTRACTOR/OFFEROR  16C. DATE SIGNED							
5A. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  16C. DATE SIGNED  16B. CONTRACTOR/OFFEROR  16C. DATE SIGNED							
5A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. (NITED STATES OF AMERICA)  16C. DATE STATES OF AMERICA							
5A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. (NITED STATES OF AMERICA)  16C. DATE STATES OF AMERICA							
15A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  16B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. CONTRACTOR/OFFEROR  16C. DATE SIGNED		A company description of	) A or 10A or haratafare -L	anged remains unchang	ed and in full	force and	effect.
James W. Skinner, Contracting Officer  158. CONTRACTOR/OFFEROR 150. DATE SIGNED 168. UNITED STATES OF AMERICA 160. DATE STATES OF AMERICA.	except as provided herein, all terms and conditions of the	document referenced in Item 9	1464 NAME AND TITLE C	E CONTRACTING OFFIC	ER (Type or	print)	-110011
15B. CONTRACTOR/OFFEROR 15C. DATE SIGNED 16B. UNITED STATES OF MERICA 16C. DATE STATES	15A. NAME AND TITLE OF SIGNER (Type or print)		IOA. NAME AND TILE C	TOTALISTO OFFIC	emit it i i i i i i		
16C. DATE SIGNED 16B. UNITED STATES OF MERICA. 16C. DATE S							
16C. DATE SIGNED 16B. UNITED STATES OF MERICA. 16C. DATE S			James W. Skinner, C	ontracting Officer			
Herely W. Housely 5-21	15R CONTRACTOR/OFFEROR	15C. DATE SIGNED				160	. DATE SIGNE
			1 Xuys-W.c	Yeunes		(	-31-01
(Signature of person authorized to sign) (Signature of Contracting Officer)			/ /Qinnet	re of Contracting Officer	rì	— I <sup>-</sup>	2101

Contract No. DE-AC05-84ER40150 Modification No. A205 Page 2 of 4

1. The amount obligated under this contract is increased by \$1,995,567 and is changed from \$1,073,858,817.77 to \$1,075,854,384.77. As a result, the first sentence of paragraph (a) of Article 31, "Obligation of Funds," is changed to read as follows:

Obligation of Funds. The amount presently obligated by the Government with respect to this contract is as follows:

Fund Type	B&R Code	Change	FY01	To Date
TE	EW3110022	0.00	0.00	50,000.00
ΥA	EB550000	168,000.00	168,000.00	168,000.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KA043012	0.00	5,000.00	5,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
· WA	KB0101021	0.00	5,741,000.00	16,264,575.00
WA	KB0102011	0.00	40,599,000.00	120,334,411.00
WA	KB0102011 (AIP A001)	0.00	1,288,000.00	4,088,000.00
WA	KB0102011 (GPP)	0.00	629,000.00	2,159,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP Á001)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	4,890,000.00	19,658,398.00
WA	KB0102012 (01CG)	0.00	0.00	0.00
WA	KB0102012 (EQUEQU01CG)	0.00	1,016,000.00	1,016,000.00
' WA	KB0102012	0.00	18,324,000.00	55,089,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	(80,000.00)	938,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
· WA	KB0301020	0.00	542,000.00	1,662,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	100,000.00	175,600.00
WA	KP1402010 (EQU)	0.00	0.00	339,400.00

Received Time Jun. 5. 8:59AM

Contract No. DE-AC05-84ER40150 Modification No. A203 Page 3 of 4

Fund Type	B&R Code	Change	FY01	To Date
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
ΥA	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00
YA	KT0101017	0.00	0.00	412,000.00
ΥA	KT0101018	0.00	0.00	31,350.00
ΥA	KT0101019	0.00	0.00	5,000.00
ΥA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
ΥA	KT0201013	0.00	0.00	87,300.00
ΥA	WB0000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1Y	650102000 (ACR34-002)	0.00	0.00	11,250.00
Ϋ́A	AT2540000	0.00	0.00	5,000.00
3Y	400412000 (AGRY1OR133700)	0.00	42,456.31	42,456.31
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	40403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
3T	40403309 (OP AGR-00-F-0439)	0.00	0.00	9,029,126.21
3T	400403309 (AGRN0001401-F-0171)	0.00	4,195,922.33	4,195,922.33
YA	KJ0102000	00.0	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	50,000.00	150,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER401501111J)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER4015011111J CR40)	334,776.00	3,347,076.00	5,212,076.00
TC	820201000 (OF TSKER 40150JLAAA CR40)	17,111.00	17,111.00	17,111.00
TC	820201000 (OF TSKER40150TJAAA CR40)	1,705,680.00	17,056,821.00	26,988,821.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
	39DP04000	0.00	0.00	644,134.00
TC		0.00	0.00	395,000.00
TC TC	39DP04040 39DP08170	(230,000.00)	(70,000.00)	(70,000.00)
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	0.00	494,000.00
	600305000 (OP AGR2000W003)	0.00	6,000.00	20,000.00
2Y	600305000 (OP AGR2000W003)	0.00	0.00	5,000.00
2Y	•	0,00	13,934.06	90,000.00
2Y	600302000 (OP AGR2000W001)	0.00	0.00	98,652.00
SA	YN1901000	0.00	0.00	25,000.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	200,000.00
WA	KB0401022	0.00	0.00	200,000.00

Contract No. DE-AC05-84ER40150 Modification No. A205 Page 4 of 4

Fund Type	B&R Code		Change	FY01	To Date
WA	KB0401052		0.00	387,000.00	387,000.00
WA	KX0201000		0.00	45,000.00	45,000.00
WA	FS1000000		0.00	0.00	0.00
WA	FS1001100		0.00	346,000.00	346,000.00
WA	FS1001500		0.00	46,000.00	46,000.00
WA	FS1005100		0.00	100,000.00	100,000.00
TF	CD0703000		0.00	44,328.00	44,328.00
FG	GD0703000		0.00	145,500.00	145,500.00
FG	GD0703000 (EQU)		0.00	115,000.00	115,000.00
		TOTAL	\$1,995,567.00	\$99,110,148.70	\$1,075,854,384.77

AMENDMENT OF SOLICITAT	MODIFICATION (	JI CONTINACT	N. 1		1 1 2
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCE	HASE REQ. NO.	5. PROJECT	NO. (if applicable)
M206	See Block 16C.				
. ISSUED BY CODE		7. ADMINISTERED BY	(if other than Item 6)	CODE	
J.S. Department of Energy		7			<u> </u>
JNAF Site Office					
2000 Jefferson Avenue					
ewport News, VA 23606	C-1 210 C-1-1	<u></u>	(X) 9A. AMENDME	NT OF SOLIO	TON NO
NAME AND ADDRESS OF CONTRACTOR (No., street, co- outheastern Universities Research Association, Inc.	••		(X) 9A. AMENDME	NI OF SOLICIA	ATION NO.
200 New York Avenue, NW	•				
•			9B. DATED (SE	E ITEM 11)	
/ashington, D.C. 20005					
	•		10A. MODIFICA	ATION OF CON	TRACT/ORDER NO.
			DE-AC05-84	ER40150	
			X 108. DATED (S	EE ITEM 11)	
			_	•	
	CILITY CODE		August 3, 19	84	
11. THIS ITEM	M ONLY APPLIES TO	AMENDMENTS OF	SULICITATIONS	· · · ·	
our desire to change an offer already submitted, such chan- nendment, and is received prior to the opening hour and di	ate specified.	or letter, provided each te	legram or letter makes r	eference to the	solicitation and this
PART DESCRIPTION OF THE STREET	ate specified.  INLY APPLIES TO MOTHE CONTRACT/ORD SUANT TO: (Specify authority ORDER IS MODIFIED TO REF	ODIFICATION OF CODER NO. AS DESCR	ONTRACTS/ORDE BIBED IN ITEM 14. WITH IN ITEM 14 ARE MA	RS.  DE IN THE CO	solicitation and this
Dur desire to change an offer already submitted, such channendment, and is received prior to the opening hour and dispersion of the opening hour and dispersion of the openi	ORDER IS MODIFIED TO REFI	ODIFICATION OF CODER NO. AS DESCR	ONTRACTS/ORDE DIBED IN ITEM 14. RTH IN ITEM 14 ARE MA VE CHANGES (such as c. 3.103(b).	RS. DE IN THE CO	NTRACT ORDER
PARTIES CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/(appropriation date, etc.) SET FORTH IN X. In accordance with Clause H.31 entitle	ORDER IS MODIFIED TO REPORTED INTO PURSUANT TO THE MODIFIED TO REPORT TO THE MODIFIED TO REPORT TO THE MODIFIED INTO PURSUANT TO THE P	ODIFICATION OF CODER NO. AS DESCR	ONTRACTS/ORDE DIBED IN ITEM 14. RTH IN ITEM 14 ARE MA VE CHANGES (such as c. 3.103(b).	RS. DE IN THE CO	NTRACT ORDER
Dur desire to change an offer already submitted, such channendment, and is received prior to the opening hour and dispersion of the opening hour already submitted.  A. THIS CHANGE ORDER IS ISSUED PURE NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/(appropriation date, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS  X. In accordance with Clause H.31 entitle D. OTHER (Specify type of modification as	ate specified.  A)  ONLY APPLIES TO MC THE CONTRACT/ORD SUANT TO: (Specify authority  ORDER IS MODIFIED TO REFI N ITEM 14, PURSUANT TO T ENTERED INTO PURSUANT AI "Performance Measure and authority)	ODIFICATION OF CODER NO. AS DESCR	ONTRACTS/ORDE DIBED IN ITEM 14. RTH IN ITEM 14 ARE MA VE CHANGES (such as c. 3.103(b).	RS. DE IN THE CO	NTRACT ORDER
DATE OF THIS CHANGE ORDER IS ISSUED PURE NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/C appropriation date, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS IN accordance with Clause H.31 entitle D. OTHER (Specify type of modification are Self-Assessment and Performance Evented to the result of the contract o	ate specified.  I)  I)  I)  I)  I)  I)  I)  I)  I)  I	DDIFICATION OF CO DER NO. AS DESCR THE CHANGES SET FOR LECT THE ADMINISTRATION HE AUTHORITY OF FAR 4 TO AUTHORITY OF: Review" and Clause H.	ONTRACTS/ORDE DIBED IN ITEM 14. RTH IN ITEM 14 ARE MA VE CHANGES (such as of 3.103(b).	RS.  DE IN THE CO	NTRACT ORDER  org office,  dards of Performance
Description of the period of the contract of t	ate specified.  I)  I)  I)  I)  I)  I)  I)  I)  I)  I	ODIFICATION OF CODER NO. AS DESCRION THE CHANGES SET FOR LECT THE ADMINISTRATION OF FAR 4 TO AUTHORITY OF: Review" and Clause H. is document and re	ONTRACTS/ORDE BED IN ITEM 14. BITH IN ITEM 14 ARE MA VE CHANGES (such as of 3, 103(b).  32 entitled "Use of O)  turn2c	RS.  ADE IN THE CO	NTRACT ORDER
DESCRIPTION OF AMENDMENT/MODIFICATION (Organism of the opening hour and dispersion of the opening hour and dispersion date, as the contract of the opening of the opening hour and dispersion of the opening hour	ate specified.  I)  I)  I)  I)  I)  I)  I)  I)  I)  I	ODIFICATION OF CODER NO. AS DESCRION THE CHANGES SET FOR LECT THE ADMINISTRATION OF FAR 4 TO AUTHORITY OF: Review" and Clause H. is document and re	ONTRACTS/ORDE BED IN ITEM 14. BITH IN ITEM 14 ARE MA VE CHANGES (such as of 3, 103(b).  32 entitled "Use of O)  turn2c	RS.  ADE IN THE CO	NTRACT ORDER  org office,  dards of Performance
DUR deaire to change an offer already submitted, such channendment, and is received prior to the opening hour and discretely and a submitted.  2. ACCOUNTING AND APPROPIRATION DATA (If required N/A  1.3. THIS ITEM OF IT MODIFIES TO MODIFIES THE MODIFIES TO MODIFIES THE MODIFIES TO MODIFIES THE ABOVE NUMBERED CONTRACT// appropriation date, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS IN accordance with Clause H.31 entitle D. OTHER (Specify type of modification as Self-Assessment and Performance Evil. IMPORTANT: Contractor is not, X.  4. DESCRIPTION OF AMENDMENT/MODIFICATION (Organism and description and description of AMENDMENT/MODIFICATION (Organism and description and description of AMENDMENT/MODIFICATION (Organism and description and d	AT SPECIFIED.  AND APPLIES TO MC THE CONTRACT/ORD SUANT TO: (Specify authority)  ORDER IS MODIFIED TO REPORT TO THE MALE TO THE METERED INTO PURSUANT TO THE PURSUANT TO THE METERED INTO PURSUANT TO THE PURS	ODIFICATION OF CODER NO. AS DESCRION THE CHANGES SET FOR LECT THE ADMINISTRATION OF FAR 4 TO AUTHORITY OF: Review" and Clause H. is document and re	ONTRACTS/ORDE BED IN ITEM 14. BITH IN ITEM 14 ARE MA VE CHANGES (such as of 3, 103(b).  32 entitled "Use of O)  turn2c	RS.  ADE IN THE CO	NTRACT ORDER  org office,  dards of Performance
DUR deaire to change an offer already submitted, such chan- mendment, and is received prior to the opening hour and dis-  2. ACCOUNTING AND APPROPIRATION DATA (If required N/A)  13. THIS ITEM OF IT MODIFIES TO	ONLY APPLIES TO MOTHE CONTRACT/ORD SUANT TO: (Specify authority ORDER IS MODIFIED TO REFINITEM 14, PURSUANT TO TENTERED INTO PURSUANT and "Performance Measure and authority) aluation."  Is required to sign the inized by UCF section heading SEE FOLLOWING PAGE	ODIFICATION OF CODER NO. AS DESCR OTHE CHANGES SET FOR LECT THE ADMINISTRATION OF FAR 4 TO AUTHORITY OF: Review" and Clause H. is document and res, including solicitation/con	DNTRACTS/ORDE BIBED IN ITEM 14. BITH IN ITEM 14 ARE MA  VE CHANGES (such as of 3,103(b).  32 entitled "Use of Oji  turn	RS.  ADE IN THE CO	NTRACT ORDER  ng office,  dards of Performance
2. ACCOUNTING AND APPROPIRATION DATA (If required N/A  1.3. THIS ITEM O IT MODIFIES  CHECK ONE  A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT// appropriation date, etc.) SET FORTH IN  C. THIS SUPPLEMENTAL AGREEMENT IS  X. In accordance with Clause H.31 entitle  D. OTHER (Specify type of modification as Self-Assessment and Performance Evic.)  IMPORTANT: Contractor is not, X  4. DESCRIPTION OF AMENDMENT/MODIFICATION (Organization of the decordance of the de	ONLY APPLIES TO MOTHE CONTRACT/ORD SUANT TO: (Specify authority ORDER IS MODIFIED TO REFINITEM 14, PURSUANT TO TENTERED INTO PURSUANT and "Performance Measure and authority) aluation."  Is required to sign the inized by UCF section heading SEE FOLLOWING PAGE	ODIFICATION OF CODER NO. AS DESCR OTHE CHANGES SET FOR LECT THE ADMINISTRATION OF FAR 4 TO AUTHORITY OF: Review" and Clause H. is document and res, including solicitation/con	DNTRACTS/ORDE BIBED IN ITEM 14. BITH IN ITEM 14 ARE MA  VE CHANGES (such as of 3, 103(b).  32 entitled "Use of O)  turn	RS.  ADE IN THE CO.  Changes in paying the bectives Standard to the copies to the copies to the copies and in full	NTRACT ORDER  Order of Performance issuing office.
our deaire to change an offer already submitted, such channendment, and is received prior to the opening hour and discretely and is received prior to the opening hour and discretely and a conditions of the decretely appropriate the first supplemental agreement is a cordance with Clause H.31 entitle D. OTHER (Specify type of modification as Self-Assessment and Performance Evic.). In accordance with Clause H.31 entitle D. OTHER (Specify type of modification as Self-Assessment and Performance Evic.). IMPORTANT: Contractor is not, is not, is not, is not, in the decretely as provided herein, all terms and conditions of the decree as provided herein, all terms and conditions of the decree as provided herein, all terms and conditions of the decree as provided herein, all terms and conditions of the decree as provided herein, all terms and conditions of the decree as provided herein, all terms and conditions of the decree as provided herein, all terms and conditions of the decree as provided herein, all terms and conditions of the decree as provided herein, all terms and conditions of the decree as provided herein, all terms and conditions of the decree as provided herein, all terms and conditions of the decree as provided herein.	ONLY APPLIES TO MOTHE CONTRACT/ORD SUANT TO: (Specify authority ORDER IS MODIFIED TO REFINITEM 14, PURSUANT TO TENTERED INTO PURSUANT and "Performance Measure and authority) aluation."  Is required to sign the inized by UCF section heading SEE FOLLOWING PAGE	DDIFICATION OF CODER NO. AS DESCROTHE CHANGES SET FOR LECT THE ADMINISTRATION OF FAR 4-10 AUTHORITY OF:  Review" and Clause H.  is document and res, including solicitation/contact in the contact in the	DNTRACTS/ORDE BED IN ITEM 14 BED IN	RS.  ADE IN THE CO.  Changes in paying the bectives Standard to the copies to the copies to the copies and in full	NTRACT ORDER  Order of Performance issuing office.
Our deaire to change an offer already submitted, such channendment, and is received prior to the opening hour and discretely and is received prior to the opening hour and discretely appropriated N/A  13. THIS ITEM OF IT MODIFIES  CHECK ONE  A. THIS CHANGE ORDER IS ISSUED PURENO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ appropriation date, etc.) SET FORTH IN  C. THIS SUPPLEMENTAL AGREEMENT IS  X. In accordance with Clause H.31 entitle D. OTHER (Specify type of modification and Self-Assessment and Performance Events IMPORTANT: Contractor is not, is not, is not, is not.  4. DESCRIPTION OF AMENDMENT/MODIFICATION (Organisation and Self-Assessment and conditions of the distance	ONLY APPLIES TO MOTHE CONTRACT/ORD SUANT TO: (Specify authority ORDER IS MODIFIED TO REFINITEM 14, PURSUANT TO TENTERED INTO PURSUANT and "Performance Measure and authority) aluation."  Is required to sign the inized by UCF section heading SEE FOLLOWING PAGE	DDIFICATION OF CODER NO. AS DESCR OTHE CHANGES SET FOR LECT THE ADMINISTRATI' HE AUTHORITY OF FAR 4 TO AUTHORITY OF: Review" and Clause H is document and re s, including solicitation/con	DNTRACTS/ORDE BED IN ITEM 14 ITH IN ITEM 14 ARE MA VE CHANGES (such as of 3, 103(b).  32 entitled "Use of Oji turn	RS.  ADE IN THE CO.  Changes in paying the bectives Standard to the copies to the copies to the copies and in full	NTRACT ORDER  Order of Performance issuing office.
1.3. THIS ITEM O IT MODIFIES  CHECK ONE  A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ appropriation date, etc.) SET FORTH IN  C. THIS SUPPLEMENTAL AGREEMENT IS  X. In accordance with Clause H.31 entitle D. OTHER (Specify type of modification as Self-Assessment and Performance Evi  E. IMPORTANT: Contractor is not, X  4. DESCRIPTION OF AMENDMENT/MODIFICATION (Organ  SEXCEPT AS PROVIDED IN THE CONTRACTOR (Organ  EXCEPT AS PROVIDE	ONLY APPLIES TO MOTHE CONTRACT/ORD SUANT TO: (Specify authority) ORDER IS MODIFIED TO REFINITEM 14, PURSUANT TO TENTERED INTO PURSUANT ad "Performance Measure and authority) aluation."  Is required to sign the intention of the purchase of	DDIFICATION OF CODER NO. AS DESCR THE CHANGES SET FOR LECT THE ADMINISTRATION HE AUTHORITY OF FAR 4 TO AUTHORITY OF: Review" and Clause H. is document and re s, including solicitation/con 16A. NAME AND TITLE of James W. Skinner, C	DNTRACTS/ORDE BED IN ITEM 14 ITH IN ITEM 14 ARE MA VE CHANGES (such as of 3, 103(b).  32 entitled "Use of Oji turn	RS.  ADE IN THE CO.  Changes in paying the bectives Standard to the copies to the copies to the copies and in full	NTRACT ORDER  Mards of Performance issuing office.

NSN 7540-01-152-8070 Previous edition unusable STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243

DE-AC05-84ER40150 Modification M206 Page 2 of 2

- 1. The purpose of this modification is to revise Appendix B (Performance Evaluation by Performance-Based Metrics) as follows:
  - a. Revise Performance Measure 5.6 entitled "Fraction of High-value Facilities Rated 'Highly Protected Risk' (4 points)." Attachment 1 is the replacement page that incorporates the revised Performance Measure 5.6.
  - b. Revise Performance Measure 6.6 entitled "Stores Inventory Rate (1 point)": Attachment 2 is the replacement page that incorporates the revised Performance Measure 6.6.
  - c. Revise Performance Measure 6.13 entitled "Average Procurement Cycle time to award a simplified purchase order (\$0 < \$100,000) (3 points)." Attachment 3 is the replacement page that incorporates the revised Performance Measure 6.13.
- 2. All other terms and conditions remain unchanged and in full force and effect.

Attachment 1

- A facility is a separate building and its contents
- A facility is high-value if it has a maximum credible fire loss of \$1 million or more
- · A facility is high-value if it is mission essential
- A facility is mission essential if its maximum credible fire loss would result in more than a three month programmatic delay

**Data collection:** Facilities which are high-value are determined by the Plant Engineering Director, with DOE Site Office concurrence. Information required to classify the level of fire protection is collected by representatives from the technical services group of SURA's fire and property insurance carrier.

Data evaluation: Performed by representatives from the technical services group of SURA's fire and property insurance carrier. Evaluations are scheduled in even-numbered fiscal years only, and the same score is used in the succeeding odd-numbered fiscal year. Evaluations may be conducted in an odd-numbered fiscal year if either SURA or DOE believes that there has been a substantive change in the Highly Protected Risk status; in this event, the new score will be used in the odd-numbered year.

Performance measure custodian: EH&S Reporting

Performance measurement validation: Site Office concurrence ensures that the high-value facilities are correctly identified. The fact that the same insurance carrier classifies the fire protection risk and provides SURA's fire coverage assures accuracy in the classification.

Scoring: Based directly on fraction of high-value facilities meeting criteria

Performance Level (Score)	Adjectival Rating	% of Assigned Points
0.95 to 1.00	Outstanding	90 to 100
0.90 to < 0.95	Excellent	80 to <90
0.85 to < 0.90	Good	70 to <80
0.80 to < 0.85	Marginal	60 to <70
0.75 to < 0.80	Unsatisfactory (Poor)	50 to <60
0.00 to < 0.75	Unsatisfactory (Failing)	0 to <50

<sup>†</sup> In each adjectival category, points are assigned by linear interpolation between the ranges listed.

Attachment 2

### Scoring:

Performance Level = [(Value of property not located during each of the inventories / Corresponding value of property for each class inventoried) \* 100]

Submeasure	Frequency	Odd Years	Even Years
6.5a Capital Equipment	biannual	2 points	0 pts. (not conducted)
6.5b Sensitive	annual	2 points	4 points
6.5c Stores	annual	1 point	1 point

Performance Level Adjectival Rating		% of Maximum Assigned Point	
< 1%	Outstanding	100	
≥ 1% to < 1.5%	Excellent	85	
≥ 1.5% to < 2%	Good	70	
≥ 2.0% to < 3%	Marginal	55	
≥ 3.0% to < 4.0%	Unsatisfactory (Poor)	40	
≥ 4.0%	Unsatisfactory (Failing)	0	

# 6.6 Stores Inventory Reduction Rate. [1 point]

Reduction in the inventory of the Technical Stockroom by an amount equating to 10% by September 30, 2001.

# Scoring

Performance Level = Percentage of Technical Stockroom inventory reduction measured by dividing the total dollar stockroom inventory transferred to Property Management by the dollar value of the JLab Technical Stockroom shelf inventory as of October 1, 2000.

Performance Level	Performance Level Adjectival Rating	
≥ 11 %	Outstanding	100
≥ 10 % to < 11 %	Excellent	85
≥ 9 % to < 10 %	Good	70
≥ 8 % to < 9 %	Marginal	60
≥ 7 % to < 8 %	Unsatisfactory (Poor)	50
< 7 %	Unsatisfactory (Failing)	0

A\*\*achment 3

- 6.11 Number of occurrences that the monthly Cost Management Report (533M) had to be resubmitted to the DOE Contracting Officer to correct erroneous data reported by the Lab. [1 point]
- 6.12 Number of travel expense reports taken from a 10% random sample of Department audited expense reports that contained an error exceeding \$100 that was not detected at the time the expense report was originally audited by Business Services. [1 point]

# PROCUREMENT (6 points)

Objective: Assure procurement functions are carried out so as to be cost effective, meet contractual requirements, satisfy customers' needs, and meet socioeconomic goals.

- 6.13 Average procurement cycle time to award a simplified purchase order (\$0 <\$100,000). [3 points]
- 6.14 Percent of total available purchasing dollars awarded to: small business concerns; small women-owned business concerns; and small disadvantaged business concerns. [3 points]

# HUMAN RESOURCES AND SERVICES (6 points)

Objective: Attract and retain a diverse workforce capable of successfully executing Jefferson Lab's mission. Provide a workplace environment conducive to employee well-being and growth. Maintain innovative compensation practices aligned with the market place to attract and retain a diverse, well-trained workforce. Maintain innovative and cost-effective health care programs aligned with the commercial market place for similarly situated workforce programs. Provide a comprehensive program of library, publications, and records management services in support of Lab activities.

- 6.15a Percent of action oriented diversity commitments, as established in the Affirmative Action Plan (AAP) completed during the fiscal year. [1 point]
- 6.15b Representation of protected classes (PC) within each EEO-1 category at the end of the fiscal year compared to the beginning of the fiscal year (adjusted for voluntary separations). [1 point]
- 6.16 Sustainable EEOC charges. [1 point]
- 6.17 Achieve compensation positions aligned with market practices to reflect the Lab's midmarket compensation philosophy. [1 point]
- 6.18 Percent of three-year rolling average of annual increases in premium cost relative to market. [1 point]

# PROCUREMENT (6 points)

6.13 Average procurement cycle time to award a simplified purchase order (\$0 <\$100,000). [3 points]

#### Introduction:

Procurement cycle time is based on the date the purchase requisition is received in Procurement until the action is awarded, but does not include the time required to establish new vendors or time required by Jefferson Lab requisitioners to correct deficient requisition documentation.

# Scoring:

Performance Level	Adjectival Rating	% of Maximum Assigned Points
Less than 11 Days	Outstanding	100
> 11 to < 15 Days	Excellent	85
> 15 to < 20 Days	Good	70
> 20 to < 25 Days	Marginal	55
> 25 to < 30 Days	Unsatisfactory (Poor)	40
Greater than 30 Days	Unsatisfactory (Failing)	0

6.14 Percent of total available purchasing dollars awarded to: small business concerns; small women-owned business concerns; and small disadvantaged business concerns. [3 points]

# Introduction:

- Total estimated dollar value of all planned subcontracting (to Large and Small Business concerns): \$58,600,000.
- "Total Available Purchasing Dollars" excludes: (i) awards to foreign sources; and (ii) decentralized credit card purchases.
- Awards to women-owned business concerns, and small disadvantaged business concerns will be counted for every Submeasure that is applicable.

#### FY01 Peak Performance Goals (PPG):

- Submeasure 6.14a: Award 46% of total available purchasing dollars (est. \$26,956,000) to small business concerns. (1 point)
- Submeasure 6.14b: Award 6% of available purchasing dollars (est. \$3,516,000) to women owned business concerns. (1 point)
- Submeasure 6.14c: Award 7% of available purchasing dollars (est. \$4,102,000) to small disadvantaged business concerns. (1 point)

	AMENDMENT OF SOLICITA	TION/M	ODIFICATION O	F CONTRACT	1. 0	ONTRACT ID CO	DE	PAGE 1	OF PA	AGES 4
2.5. SEALER SY  2.5. Department of Energy  TUNAP Site Office  3.5. Department of Energy  TUNAP Site Office  TUNAP Site Office  3.5. Department of Energy  TUNAP Site Office  TUNAP Site Of	2. AMENDMENT/MODIFICATION NO.	3. 1		4. REQUISITION/PURCH/	ASE RE	Q. NO.	5. PROJECT	NO. (If ap	plicble)	<del></del>
U.S. Department of Energy TUNAS SIG Office TUNAS SIGN Office TUNAS SIGN OF CONTRACTOR No., et set, county, state and ZIP Code) Sign Mank SIN JUNES SIGN CONTRACTOR No., et set, county, state and ZIP Code) Sign Mank SIN JUNES SIGN OF CONTRACTOR OF SOLICIATION NO.  U.S. DATED SISE TITM 11)  10. A MODIFICATION OF CONTRACTORDER NO. DE-ACOS-MERMOTISE DE-ACOS-MERMOTISE TITM ONLY APPLIES TO AMENDMENTS OF SOLICIATION NO. DE-ACOS-MERMOTISE U.S. DATED SISE TITM 11)  10. A MODIFICATION OF CONTRACTORDER NO. DE-ACOS-MERMOTISE DE-ACOS-MERMOTISE U.S. DATED SISE TITM 11)  10. A MODIFICATION OF CONTRACTORDER NO. DE-ACOS-MERMOTISE U.S. DATED SISE TITM 11)  10. A MODIFICATION OF CONTRACTORDER NO. DE-ACOS-MERMOTISE U.S. DATED SISE TITM 11)  10. A MODIFICATION OF CONTRACTORDER NO. DE-ACOS-MERMOTISE U.S. DATED SISE TITM 11)  10. A MODIFICATION OF CONTRACTORDER NO. DE-ACOS-MERMOTISE SISE SOLICITATION NO. DE-ACOS-MERMOTISE		CODE	See Block 16C.	7. ADMINISTERED BY (II	other	than Item 6)	CODE	T		
TJNAF Site Office 12000 Jefferson Avenue Newport News, V2 25066  8. NAME AND ADDRESS OF CONTRACTOR RIVE. street, county, State and ZIP Code)  8. NAME AND ADDRESS OF CONTRACTOR RIVE. street, county, State and ZIP Code)  8. NAME AND ADDRESS OF CONTRACTOR RIVE. street, county, State and ZIP Code)  8. NAME AND ADDRESS OF CONTRACTOR RIVE. street, county, State and ZIP Code)  8. NAME AND ADDRESS OF CONTRACTOR RIVE. street, county, State and ZIP Code)  8. NAME AND ADDRESS OF CONTRACTOR RIVE. street, county, State and ZIP Code)  8. NAME AND ADDRESS OF CONTRACTOR RIVE. street, county, State and ZIP Code)  8. NAME AND ADDRESS OF CONTRACTOR RIVE. street, county, State and ZIP Code)  8. NAME AND ADDRESS OF CONTRACTOR RIVE. street, county, State and ZIP Code)  8. NAME AND ADDRESS OF CONTRACTOR RIVE. street, county, State and ZIP Code  10. NAME AND ADDRESS OF CONTRACTOR RIVE. street, county, State and ZIP Code)  11. THIS TIPEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS  12. NAME AND ADDRESS OF CONTRACTOR RIVE. street, county, State and State specified for recognite of Office and State Sta				-				<u> </u>		
Newport News, VA 23606  RAMAE AND ADDRESS OF CONTRACTOR IND., street, county, State and ZP Code)  Southeastern Universities Research Association, Inc.  220 New York Avenue, NW  Washington, D.C. 20005  The Doos numbered excitation is exceeded as set on the contract of the second of the county of the Contract of the Co	· · · · · · · · · · · · · · · · · · ·									
Newport News, VA 23806  In FAME AND ADDRESS OF CONTRACTOR No. errest. county, State and 2IP Code)  Southeaster Driversities Research Association, Inc.  1200 New York Avenue, NW  Washington, D.C. 20005  The above rumbered collection is executed as ext critic item 14. The hore and date specified for recipit of Offices  The above rumbered collection is executed as ext critic intern 14. The hore and date specified for recipit of Offices  The above rumbered collection is executed as ext critic intern 14. The hore and date specified for recipit of Offices  The above rumbered collection is executed as ext critic intern 14. The hore and date specified for recipit of Offices  The above rumbered collection is executed as ext critic intern 14. The hore and date specified for recipit of Offices  The above rumbered collection is executed as ext critic intern 14. The hore and date specified for recipit of Offices in the above of the above rumbered collection is executed as executed as executed as executed as executed as executed as executed in the above rumbered on a executed in the collection or as executed, by one of the following metalotic internal activities and the collection of the above rumbered collection and activities and the specified of the security internal control of the above rumbered collection and activities and the specified as executed in the above rumbered control of the above rumbered collection and above rumbered rumbered collection and above rumbered rumb										
B. RAME AND ADDRESS OF CONTRACTOR No., erret. covery, State and ZIP Code) Southeastern Universities Research Association, Inc.  1200 New York Avenue, NW Washington, D.C. 20005    FACULTY CODE	12000 Jefferson Avenue									
Southeastern Universities Research Association, Inc.  1200 New York Avenue, NW  Washington, D.C. 20005    FACILITY CODE										
SB. DATED (SEE ITEM 11)   TOA. MODIFICATION OF CONTRACT/ORDER NO. DE-ACOS-84ERNO150   TOB. DATED (SEE ITEM 11)   TOA. MODIFICATION OF CONTRACT/ORDER NO. DE-ACOS-84ERNO150   TOB. DATED (SEE ITEM 11)   TOB. DAT		•	, State and ZIP Code)		(X)	9A. AMENDMEN	TOF SOLICIA	ATION NO.		
Set DATED SECTION 11		uon, inc.								
10A. MODIFICATION OF CONTRACT/GRDER NO.  DE-ACOS-BAERA0150  X  10B. DATED SEE ITEM 111  August 1.3 DATED SEE ITEM 111  Augus	·					9B. DATED (SEE	ITEM 11)			·
DEACOS-BERRADISO    The above numbered solicitation is emended as set torth in item 14. The hour and date specified for receipt of Office   is extended,   is not extended.	Washington, D.C. 20005						•			
The above numbered solicitation is amended as set forth in term 14. The hour and date specified for receipt of Offers   August 3, 1984					<del>                                     </del>	10A. MODIFICA	TION OF CON	TRACT/OF	DER NO	<del>).</del>
The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers						DE-AC05-84E	R40150			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS  The above numbered solicitation is emended as set torth in item 14. The hour and date specified to receipt of Offers					l <sub>x</sub>	10B. DATED (SE	E ITEM 11)			-
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS  The above numbered solicitation is emended as set forth in Item 14. The hour and date specified for receipt of Offers										
The above numbered solicitation is smended as set forth in item 14. The hour and date specified for receipt of Others					<u> </u>	1	4			
Differs must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: aibly completing thems 8 and 15, and returning	11. TH	IS ITEM C	NLY APPLIES TO	AMENDMENTS OF	SOL	CITATIONS				
copies of the amendment; 3b by acknowledging results of this amendment on each copy of the offer submitted; or of 3p separate letter or talegiance, and a reference to the selectation and amendment manner. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEVED AT THE COPY OF CHEER PRIOR TO THE HOUR AND DATE SECURED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment, and is received prior to the opening hour and date specified.  12. ACCOUNTING AND APPROPRIATION DATA (If required) increase \$1,145.102  13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.  CHECK ONE A. THIS CHANGE OFFER IS ISSUED PURSUANT TO: (Specily authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REPLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  Increase in obligation of funds in accordance with Clause 1.78 "Obligation of Funds."  D. OTHER (Specily type of modification and suthority)  INCREASE INTO PURSUANT INTO PURSUANT TO AUTHORITY OF FAR 43.103(b).  SEE FOLLOWING PAGES  EXCEPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject mas									tended.	
THIS CHARGE OF THE PROPRIET OF THE RECEIVED AT THE PLACE DISIGNATE PORT OF THE PROPROME ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATE PORT OF THE HOUR AND DATE SECRIFIED MAY RESULT IN REJECTION OF YOUR OFFICER. If by virtue of this amendment of deter to change an ofter already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and it received prior to the opening hour and date specified.  12. ACCOUNTING AND APPROPRATION DATA (if required)  Increase \$1,145,102  13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS.  IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.  CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify sushority) THE CHANGES SET FORTH IN ITEM 14. ARE MADE IN THE CONTRACT ORDER  NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REPLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43, 103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF  X Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  E. IMPORTANT: Contractor I is not, I is required to sign this document and return — 2 copies to the issuing office.  SEE FOLLOWING PAGES  Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as hereticfore changed, remains unchanged and in full force and effect.  15A. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16C. DATE SIGNED	Offers must acknowledge receipt of this amendment									
PLACE DESIGNATED FOR THE RECEPT OF OFFERS PINOT TO THE HOUR AND DATE SPECIFED MAY PESULT IN REJECTION OF CONTRACT AND OPEN THE WOrd delite to charge an offer already submitted, such charge may be made by stelegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received pilot to the opening frour and delet specified.  12. ACCOUNTING AND APPROPRIATION DATA (If required) Increase \$1,145,102  13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.  CHECK ONE  A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14.  CHECK ONE  B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, e.g.) SET FORTH IN ITEM 14. PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF FAR 43.103(b).  D. OTHER (Specify type of modification and authority)  E. IMPORTANT: Contractor X is not, I required to sign this document and return 2 copies to the issuing office.  14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where leasible.)  SEE FOLLOWING PAGES  Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as hereotore changed, remains unchanged and in full force and effect.  15A. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16C. DATE SIGNED										
Increase \$1,145,102  1.3. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.  CHECK ONE  A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF FAR 43.103(b).  Z. Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  E. IMPORTANT: Contractor  is not, is required to sign this document and return  2 copies to the issuing office.  14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where leasible.)  SEE FOLLOWING PAGES  Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  15A. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. WITTED STATES OF AMERICA!  JAME JAME JAME JAME JAME JAME JAME JAME	PLACE DESIGNATED FOR THE RECEIPT OF OFFEF your desire to change an offer already submitted, s	SPRIOR TO T such change m	THE HOUR AND DATE SH Tay be made by telegram	PECIFIED MAY RESULT IN I	HF. JFC:	HON OF YOUR DI	-FER. IT DV VI	rtue of this	: amenor	ment
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.  CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS INTERED INTO PURSUANT TO AUTHORITY OF FAR 43.103(b).  Z. Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  E. IMPORTANT: Contractor  is not, is required to sign this document and return 2— copies to the issuing office.  14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where leasible.)  SEE FOLLOWING PAGES  Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  15A. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFERDR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICA!  JAME JAME JAME JAME JAME JAME JAME JAME	A ACCOUNTING AND APPROPRIATION DATA (	If required)								
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.  CHECK ONE  A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER  NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF.  X Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  E. IMPORTANT: Contractor X is not, is required to sign this document and return copies to the issuing office.  14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES  Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  15A. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICAN  LAW J.		ii tedanea)								
TIMODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.  CHECK ONE  A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  X Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  E. IMPORTANT: Contractor  is not, is required to sign this document and return  copies to the issuing office.  14. DESCRIPTION OF AMENDMENT/MODIRCATION (Organized by UCF section headings, including solicitation/contract subject matter where leasible.)  SEE FOLLOWING PAGES  Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  15A. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICAN		TCM ONLY	V ADDITECTO MO	DIEICATION OF CO	MTD	ACTS/ORDER	29			
NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43, 103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  X Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  E. IMPORTANT: Contractor is required to sign this document and return copies to the issuing office.  14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES  Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  15A. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFERDR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICA  Ly 20/0/										
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43, 103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  X Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  E. IMPORTANT: Contractor  is required to sign this document and return  copies to the issuing office.  14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES  Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  15A. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFERDR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICAN  L/ 20/0 /	CHECK ONE A. THIS CHANGE ORDER IS ISSU	JED PURSUAN	NT TO: (Specify authority	) THE CHANGES SET FOR	TH IN I	TEM 14 ARE MAI	DE IN THE CO	NTRACT C	RDER	<del></del>
appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  X Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  E. IMPORTANT: Contractor  is not, is required to sign this document and return  copies to the issuing office.  14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES  Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  15A. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICAN  L. James W. Skinner, Contracting Officer										
eppropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  X Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  E. IMPORTANT: Contractor is in snot, is required to sign this document and return copies to the issuing office.  14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES  Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  15A. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICAN  Light William W										
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  E. IMPORTANT: Contractor X is not, is required to sign this document and return copies to the issuing office.  14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES  Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  15A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICA  LAWL LAWL  16C. DATE SIGNED  16C. DATE SIGNED  16D. DATE SI	B. THE ABOVE NUMBERED CO	NTRACT/ORD	ER IS MODIFIED TO REFI	ECT THE ADMINISTRATIV	E CHA	NGES (such as ch	anges in payi	ng office,		
Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."   D. OTHER (Specify type of modification and authority)   E. IMPORTANT: Contractor   Is not,   is required to sign this document and return   2   copies to the issuing office.   14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)   SEE FOLLOWING PAGES    Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.   15A. NAME AND TITLE OF SIGNER (Type or print)   16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)   James W. Skinner, Contracting Officer   16C. DATE SIGNED   15B. UNITED STATES OF AMERICA   16C. DATE SIGNED   16B. UNITED STATES OF AMERICA   16B. UNITED STATES					3,103(	o).				
D. OTHER (Specify type of modification and authority)  E. IMPORTANT: Contractor	I									
E. IMPORTANT: Contractor  is required to sign this document and return copies to the issuing office.  14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES   Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  15A. NAME AND TITLE OF SIGNER (Type or print)  15A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICAN  Limits  Limits  16C. DATE SIGNED  16C. DATE SIGNED  16C. DATE SIGNED	X Increase in obligation of funds	in accordan	ce with Clause 1.79 "O	bligation of Funds."						
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES   Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  15A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICA  LAWLY	D. OTHER (Specify type of friedly	ilication end at	Julionty)							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  SEE FOLLOWING PAGES   Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  15A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICA  4/36/6/						2				
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  15A. NAME AND TITLE OF SIGNER (Type or print)  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICA  16C. DATE SIGNED  16C. DATE SIGNED  16C. DATE SIGNED	E. IMPORTANT: Contractor 🗶 is no	ot, 🔲 is	required to sign th	is document and ret	urn	c	ppies to th	e issuin	g offic	æ.
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  15A. NAME AND TITLE OF SIGNER (Type or print)  15A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICAN  6/36/6/	14. DESCRIPTION OF AMENDMENT/MODIFICATI	ON (Organized	by UCF section heading	s, including solicitation/con	tract s	ubject matter who	re feasible.)			-
15A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICA  6/36/0/		SEE	FOLLOWING PAGES	8						
15A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICA  6/36/0/										
15A. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICA  Limit  6/36/0/										
15A. NAME AND TITLE OF SIGNER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICA  Limit  6/36/0/										
15A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICA  6/36/0/										
15A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICA  6/36/0/			,							
15A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICA  6/36/0/										•
15A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICA  6/36/0/				14 ar 104 barrat-franc		remaine unchess	ed and in full	force and	effect	
James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR  15C. DATE SIGNED  16B. UNITED STATES OF AMERICA  16C. DATE SIGNED  16C. DATE SIGNED			ment referenced in Item S	A or 10A, as heretofore ch 116A, NAME AND TITLE C	or CON	, remains unchang	ER (Type or I	print)		<del></del>
15B. CONTRACTOR/OFFEROR 15C. DATE SIGNED 16B. UNITED STATES OF AMERICA 16C. DATE SIGNED 16C. DA	15A. NAME AND THEE OF SIGNER (Type or print	4		. West constitution of the constitution of						
15B. CONTRACTOR/OFFEROR 15C. DATE SIGNED 16B. UNITED STATES OF AMERICA 16C. DATE SIGNED 16C. DA				) N/ Div 0		sting Officer				
July W. Kinnels 6/20/01			15C DATE SIGNED					16C.	DATE 8	IGNED
(Signature of person suthorized to sign)  (Signature of Contracting Officer)	15B. CONTRACTOR/OFFEROR		100. DATE SIGNED	Je.11-11	73	Vinio	,	· //_ /	12.1	'n 1
	(Cinnelland of name a shapined to six	nn)	-	(Signate	ure of	Contracting Office	r)	-\°/	<b>70/</b>	v /

NSN 7540-01-152-8070
Previous edition unusabling eceived Time Jul. 6. 10:08AM

STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243

Contract No. DE-AC05-84ER40150 Modification No. A207 Page 2 of 4

1. The amount obligated under this contract is increased by \$1,145,102 and is changed from \$1,075,854,384.77 to \$1,076,999,486.77. As a result, the first sentence of paragraph (a) of Clause I.79, "Obligation of Funds," is changed to read as follows:

Fund Type	B&R Code	Change	FY01	To Date
ΤĘ	EW3110022	0.00	0.00	50,000.00
YA	EB550000	323,600.00	491,600.00	491,600.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KA043012	0.00	5,000.00	5,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	0.00	5,741,000.00	16,264,575.00
WA	KB0102011	0.00	40,599,000.00	120,334,411.00
WA	KB0102011 (AIP A001)	0.00	1,288,000.00	4,088,000.00
WA	KB0102011 (GPP)	0.00	629,000.00	2,159,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP A001)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	4,890,000.00	19,658,398.00
WA	KB0102012 (01CG)	0.00	0.00	0.00
WA	KB0102012 (EQUEQU01CG)	0.00	1,016,000.00	1,016,000.00
WA	KB0102012	0.00	18,324,000.00	55,089,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	(80,000.00)	938,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	454,002.00	996,002.00	2,116,002.00
WA	KB0301020 (EQU EQU)	340,000.00	340,000.00	340,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA ,	39KB0000 (AIP101000)	0.00	0.00	375,000.00
ΥA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00 49,618.00
4V	KT0101011	0.00	0.00 0.00	496,000.00
YA	KT0101012	0.00	0.00	380,000.00
YA	KT0101014	0.00		33,000.00
4V	KT0101012	0.00	0.00	•
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	100,000.00	175,600.00
WA	<b>KP1402010 (EQU)</b> Received Time Jul. 6. 10:08AM	0.00	0.00	339,400.00

Contract No. DE-AC05-84ER40150 Modification No. A207 Page 3 of 4

Fund Type	B&R Code	Change	FY01	To Date
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
YA	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00
YA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00	87,300.00
YA	WB0000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (iHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1Y	650102000 (OP AGR00-004)	0.00	0.00	11,250.00
1Y	650102000 (AGRS003)	2,500.00	2,500.00	2,500.00
YA	AT2540000	0.00	0.00	5,000.00
3Y	400412000 (AGRY1OR133700)	0.00	42,456.31	42,456.31
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	40403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
3T	40403309 (OP AGR-00-F-0439)	0.00	0.00	9,029,126.21
3T	400403309 (AGRN0001401-F-0171)	0.00	4,195,922.33	4,195,922.33
YA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	50,000.00	150,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER401501111J CR40)	0.00	3,347,076.00	5,212,076.00
TC	820201000 (OP TSKER 40150JLAAA CR40)	0.00	17,111.00	17,111.00
TC	820201000 (OP TSKER40150TJAAA CR40)	0.00	17,056,821.00	26,988,821.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000 `	0.00	0.00	644,134.00
TC	39DP04040	0.00	0.00	395,000.00
TC	39DP08170	0.00	(70,000.00)	(70,000.00)
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	0.00	494,000.00
2Y	600305000 (OP AGR2000W003)	0.00	6,000.00	20,000.00
2Y	600305000 (OP AGR2000W002)	25,000.00	25,000.00	30,000.00
2Y	600302000 (OP AGR2000W001)	0.00	13,934.06	90,000.00
SA	YN1901000	0.00	0.00	98,652.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	0.00	200,000.00

Contract No. DE-AC05-84ER40150 Modification No. A207 Page 4 of 4

Fund Type	B&R Code		Change	FY01	To Date
WA	KB0401052		0.00	387,000.00	387,000.00
WA	KX0201000		0.00	45,000.00	45,000.00
WA	FS1000000		0.00	0.00	0.00
WA	F\$1001100		0.00	346,000.00	346,000.00
WA	FS1001500		0.00	46,000.00	46,000.00
WA	FS1005100		0.00	100,000.00	100,000.00
TF	CD0703000		0.00	44,328.00	44,328.00
FG	GD0703000		0.00	145,500.00	145,500.00
FG	GD0703000 (EQU)		0.00	115,000.00	115,000.00
	, ,	TOTAL	\$1,145,102.00	\$100,255,250.70	\$1,076,999,486.77

AMENDMENT C	F SOLICITATION	MODIFICATION C	F CONTRACT	1. C	ONTRACT ID CO	DE	PAGE 1	OF I	PAGES 4
AZO8	ON NO.	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHA	SE RE	Q. NO.	5. PROJECT	NO. (If ap	plicble	
ISSUED BY	CODE	See Block 100	7. ADMINISTERED BY (If	other	han Item 6)	CODE	T		
` Department of Energy F Site Office ⊇000 Jefferson Avenue	,	<u> </u>					L.,		
Newport News, VA 23606			ļ.						
. NAME AND ADDRESS OF C	CONTRACTOR (No., street, co	unty, State and ZIP Code)		(X)	9A. AMENDMEN	T OF SOLICIA	ATION NO.		-
Southeastern Universities	Research Association, Inc								
200 New York Avenue, N	W				an namen see	12714 1 1 1			
Washington, D.C. 20005					9B. DATED (SEE	. ITEWI 11)			
			ŀ		10A. MODIFICA	TION OF CON	TRACT/OF	RDFR N	iO.
				:	DE-AC05-84E				••
				х	10B. DATED (SE				
				^					
CODE	FA	CILITY CODE			August 3, 198	14			
	11. THIS ITE	M ONLY APPLIES TO	AMENDMENTS OF	SOLI	CITATIONS				
or (c) By separate letter or tele PLACE DESIGNATED FOR THI your desire to change an offer amendment, and is received p	E RECEIPT OF OFFERS PRIOR already submitted, such char rior to the opening hour and d	TO THE HOUR AND DATE SP Ige may be made by telegram ate specified.	PECTETET) MAY RESULT IN R	F.JF(:	ION OF YOUR O	FFFM. IT DV VI	ITUE OF TOIS	s amen	ament
se \$2,107,154.36									
	IT MODIFIES	ONLY APPLIES TO MO THE CONTRACT/ORD	DER NO. AS DESCRI	BED	IN ITEM 14.				
NO. IN IT	TEM 10A.	SUANT TO: (Specify authority						JRDEK	
appropri	ation date, etc.) SET FORTH I	ORDER IS MODIFIED TO REFL N ITEM 14, PURSUANT TO T	HE AUTHORITY OF FAR 43.	E CHA 103(L	NGES (such as cl	hanges in payi	ing office,		
1		ENTERED INTO PURSUANT							
	obligation of funds in acco Specify type of modification a	rdance with Clause I.79 "C nd authority)	Doligation of Funds.						
E. IMPORTANT: Con	tractor X is not,	is required to sign th	is document and retu	ırn	c	opies to th	ne issuin	g off	ice.
14. DESCRIPTION OF AMEN	DMENT/MODIFICATION (Orga	nized by UCF section heading SEE FOLLO	s, including solicitation/cont WING PAGES	ract s	ubject matter wh	ere feasible.)			
Except as provided barein al	I terms and conditions of the	document referenced in Item S	A or 10A, as heretofore ch	anged,	remains unchan	ged and in full	force and	effect.	
15A. NAME AND TITLE OF	SIGNER (Type or print)		16A. NAME AND TITLE O	F CON	ITRACTING OFFI	CER (Type or	print)		
CONTRACTOR/OFFER	DR .	15C. DATE SIGNED	James W. Skinner, Co 16B UNITED STATES OF			, ,		. DATE	
(Signature of pe	rson authorized to sign)		(Signatu	reof	Contracting Office	er) T			~ I

Contract No. DE-AC05-84ER40150 Modification No. A208 Page 2 of 4

The amount obligated under this contract is increased by \$2,107,154.36 and is changed from \$1,076,999,486.77 to \$1,079,106,641.13. As a result, the first sentence of paragraph (a) of Clause I.79, "Obligation of Funds," is changed to read as follows:

Fund Type	B&R Code	Change	FY01	To Date
TE	EW3110022	0.00	0.00	50,000.00
YA	EB550000	0.00	491,600.00	491,600.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KA043012	0.00	5,000.00	5,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	0.00	5,741,000.00	16,264,575.00
WA	KB0102011	0.00	40,599,000.00	120,334,411.00
WA	KB0102011 (AIP A001)	0.00	1,288,000.00	4,088,000.00
\VA	KB0102011 (GPP)	0.00	629,000.00	2,159,000.00
<b>√A</b>	KB0102011 (EQU)	0.00	0.00	0.00
`~~WA	KB0102012 (AIP A001)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	4,890,000.00	19,658,398.00
WA	KB0102012 (01CG)	0.00	0.00	0.00
WA	KB0102012 (EQUEQU01CG)	0.00	1,016,000.00	1,016,000.00
WA	KB0102012	0.00	18,324,000.00	55,089,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	(80,000.00)	938,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	996,002.00	2,116,002.00
WA	KB0301020 (EQU EQU)	0.00	340,000.00	340,000.00
WA	KC0301030	0.00	0.00	200,000.00
ΥA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
ΥA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
ΥA	KT0101012	0.00	0.00	496,000.00
ΥA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
→ TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	100,000.00	175,600.00
WA	KP1402010 (EQU)	0.00	0.00	339,400.00

Contract No. DE-AC05-84ER40150 Modification No. A208 Page 3 of 4

F rad Type	B&R Code	Change	FY01	To Date
· WA	KP1401030	225,000.00	225,000.00	225,000.00
WA	KP1401030 (EQU EQU)	295,000.00	295,000.00	295,000.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
YA	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00
YA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00	87,300.00
YA	WB0000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39VVB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1Y	650102000 (OP AGR00-004)	0.00	0.00	11,250.00
1Y	650102000 (AGRS003)	0.00	2,500.00	2,500.00
Ά	AT2540000	0.00	0.00	5,000.00
3Y	400412000 (AGRY1OR133700)	0.00	42,456.31	42,456.31
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	40403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
3T	40403309 (OP AGR-00-F-0439)	0.00	0.00	9,029,126.21
3T	400403309 (AGRN0001401-F-0171)	194,174.75	4,390,097.08	4,390,097.08
3T	400403309 (AGPN0001401-F-0171A)	392,979.61	392,979.61	392,979.61
YA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	50,000.00	150,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER401501111J CR40)	0.00	3,347,076.00	5,212,076.00
TC	820201000 (OP TSKER 40150JLAAA CR40)	0.00	17,111.00	17,111.00
TC	820201000 (OP TSKER40150TJAAA CR40)	1,000,000.00	18,056,821.00	27,988,821.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	0.00	0.00	395,000.00
TC	39DP08170	0.00	(70,000.00)	(70,000.00)
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	0.00	494,000.00
2Y	600305000 (OP AGR2000W003)	0.00	6,000.00	20,000.00
2Y	600305000 (OP AGR2000W002)	0.00	25,000.00	30,000.00
2Y	600302000 (OP AGR2000W001)	0.00	13,934.06	90,000.00
SA	YN1901000	0.00	0.00	98,652.00

Contract No. DE-AC05-84ER40150 Modification No. A208 Page 4 of 4

Fund Type	B&R Code	Change	FY01	To Date
. VA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	0.00	200,000.00
WA	KB0401052	0.00	387,000.00	387,000.00
WA	KX0201000	0.00	45,000.00	45,000.00
WA	FS1000000	0.00	0.00	0.00
WA	FS1001100	0.00	346,000.00	346,000.00
WA	FS1001500	0.00	46,000.00	46,000.00
WA	FS1005100	0.00	100,000.00	100,000.00
TF	GD0703000	0.00	44,328.00	44,328.00
FG	GD0703000	0.00	145,500.00	145,500.00
FG	GD0703000 (EQU)	0.00	115,000.00	115,000.00
. 3	TOTAL	\$2,107,154.36	\$102,362,405.06	\$1,079,106,641.13

AMEN	NAME AT ABOUT	# 40 BIELO		1. CONTRACT ID CO	DE PAGE OF PAGE
	DMENT OF SOLICITATION	/MODIFICATION C	F CONTRACT	1, 55,4,12,61,10,60	1 4
2. AMENDMEN	T/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHA	ASE REQ. NO.	5. PROJECT NO. (If applicable)
	A209	See Block 16C			
6. ISSUED BY	CODE		7. ADMINISTERED BY (II	other than Item 6)	CODE
U.S. Departm	ent of Energy				
TJNAF Site C	Office				
12000 Jeffers	son Avenue		1		
	/s, VA 23606				
	ADDRESS OF CONTRACTOR (No., street, oc	unty, State and Z(P Code)	1	(X) 9A. AMENDMEN	IT OF SOLICIATION NO.
	Universities Research Association, Inc			<u> </u>	
1200 New Yo	ork Avenue, NW				
Washington,	D.C. 20005			9B. DATED (SEE	ITEM 11)
,					
				10A, MODIFICA	TION OF CONTRACT/ORDER NO.
				DE-AC05-84E	
•				X 10B. DATED (SE	E IIEM 11)
2005		Oli ITV COPE			
CODE		ACILITY CODE  M ONLY APPLIES TO	AMENDMENTS OF	August 3, 198	4
	II. INIS HE	WI ONLI AFFLICO IU	VIAITIADIAIEIA 19 OL	OULIVITATIONS	
crease \$1,0	13. THIS ITEM O	"/ ONLY APPLIES TO MO THE CONTRACT/ORD			RS.
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PUR NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/	SUANT TO: (Specify authority)	THE CHANGES SET FORT	TH IN ITEM 14 ARE MAI	
	appropriation date, etc.) SET FORTH I	N ITEM 14, PURSUANT TO TH	IE AUTHORITY OF FAR 43	.103(b).	mingos at paying office,
X ·	Increase in obligation of funds in acco				
	D. OTHER (Specify type of modification a				
	· ·				
E. IMPORT	ANT: Contractor X is not,	is required to sign thi	s document and ret	co	opies to the issuing office.
	ANT: Contractor X is not, CON OF AMENDMENT/MODIFICATION (Orga	nized by UCF section headings			·
		nized by UCF section headings	s, including solicitation/con		·
14. DESCRIPTI		nized by UCF section heading SEE FOLLOV	s, including solicitation/conf WING PAGES	tract subject matter whe	ed and in full force and effect.
14. DESCRIPTI	iON OF AMENDMENT/MODIFICATION (Orga	nized by UCF section heading SEE FOLLOV	s, including solicitation/conf WING PAGES A or 10A, as heretofore ch 16A. NAME AND TITLE O	tract subject matter whe anged, remains unchang F CONTRACTING OFFIC	ed and in full force and effect.
14. DESCRIPTI	iON OF AMENDMENT/MODIFICATION (Orga	nized by UCF section heading SEE FOLLOV	s, including solicitation/conf VING PAGES A or 10A, as heretofore ch	tract subject matter whe anged, remains unchang F CONTRACTING OFFIC Contracting Officer	ed and in full force and effect.

Contract No. DE-AC05-84ER40150 Modification No. A209 Page 2 of 4

1. The amount obligated under this contract is increased by \$1,054,271.84 and is changed from \$1,079,106,641.13 to \$1,080,160,912.97. As a result, the first sentence of paragraph (a) of Clause I.79, "Obligation of Funds," is changed to read as follows:

Fund Type	B&R Code	Change	FY01	To Date
TE	EW3110022	0.00	0.00	50,000.00
YA	EB550000	0.00	491,600.00	491,600.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KA043012	0.00	5,000.00	5,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	5,000.00	5,746,000.00	16,269,575.00
WA	KB0102011	0.00	40,599,000.00	120,334,411.00
WA	KB0102011 (AIP A001)	0.00	1,288,000.00	4,088,000.00
WA	KB0102011 (GPP)	0.00	629,000.00	2,159,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP A001)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	4,890,000.00	19,658,398.00
WA	KB0102012 (01CG)	0.00	0.00	0.00
WA	KB0102012 (EQUEQU01CG)	0.00	1,016,000.00	1,016,000.00
WA	KB0102012	0.00	18,324,000.00	55,089,425.00
· WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	(80,000.00)	938,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	996,002.00	2,116,002.00
WA	KB0301020 (EQU EQU)	0.00	340,000.00	340,000.00
WA	KC0301030	0.00	0.00	200,000.00
ΥA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
		0.00	0.00	33,000.00
<b>4</b> V	KT0101012		0.00	40,000.00
4V	KT0101018	0.00	0.00	13,000.00
TF	KP0302000	0.00		175,600.00
WA	KP1402010	0.00	100,000.00	339,400.00
WA	KP1402010 (EQU)	0.00	0.00	339,400.00
	Received Time Sep. 5. 4:42PM			

٠ . .

Contract No. DE-AC05-84ER40150 Modification No. A209 Page 3 of 4

Fund Type	B&R Code	Change	FY01	To Data
WA	KP1401030		1.01	To Date
WA	KP1401030 (EQU EQU)	(170,000.00)	55,000.00	55,000.00
WA	KS0101000	170,000.00	465,000.00	465,000.00
WA	KS0102211	0.00	0.00	4,000.00
TF	KV0101012	0.00	0.00	5,000.00
TF	KV0101014	0.00	0.00	280,000.00
Ϋ́Α	KC0204010	0.00	0.00	612,000.00
ΥA	KC0702000	0.00	0.00	11,943.00
ΥA	KC0701030	0.00	0.00	665,000.00
YA	KT0101017	0.00	0.00	5,000.00
YA	KT0101017 KT0101018	0.00	0.00	412,000.00
YA	KT0101019	0.00	0.00	31,350.00
ΥA	KT0101015 KT0101025	0.00	0.00	5,000.00
ΥA	KU0100000	0.00	0.00	9,702.00
Ϋ́A	KT0201013	0.00	0.00	484,000.00
ΥA	WB0000000	0.00	0.00	87,300.00
1Y		0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR-2001-S002)	24,000.00	24,000.00	24,000.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1Y	650102000 (OP AGR00-004)	0.00	0.00	11,250.00
Ϋ́A	650102000 (AGRS003)	0.00	2,500.00	2,500.00
3Y	AT2540000	0.00	0.00	5,000.00
3T	400412000 (AGRY1OR133700)	0.00	42,456.31	42,456.31
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
	400403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
3T	400403309 (OP AGR-00-F-0439)	0.00	0.00	9,029,126.21
3T	400403309 (AGRN0001401-F-0171)	0.00	4,390,097.08	4,390,097.08
3T	400403309 (AGPN0001401-F-0171A)	0.00	392,979.61	392,979.61
3T	400403309 (AGRN00014-01-F-0171B)	24,271.84	24,271.84	24,271.84
YA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA To	KJ0101030	0.00	50,000.00	150,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER401501111J CR40)	0.00	3,347,076.00	5,212,076.00
TC	820201000 (OP TSKER 40150JLAAA CR40)	0.00	17,111.00	17,111.00
TC	820201000 (OP TSKER40150TJAAA CR40)	1,000,000.00	19,056,821.00	28,988,821.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	0.00	0.00	395,000.00
TC	39DP08170	8.88	(70,000.00)	
2Y	600301010 (AGR-2001-W003)	1,000.00		(70,000.00)
2Y	600301010 (OP AGR98003105)	0.00	1,000.00	1,000.00
2Y	600305000 (OP AGR99W001)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR2000W003)		0.00	494,000.00
	Received Time Sep. 5. 4:42PM	0.00	6,000.00	20,000.00

Contract No. DE-AC05-84ER40150 Modification No. A209 Page 4 of 4

Fund Type	B&R Code	Change	FY01	To Date
2Y	600305000 (OP AGR2000W002)	0.00	25,000.00	30,000.00
2Y	600302000 (OP AGR2000W001)	0.00	13,934.06	90,000.00
SA	YN1901000	0.00	0.00	98,652.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	0.00	200,000.00
WA	KB0401052	0.00	387,000.00	387,000.00
WA	KX0201000	0.00	45,000.00	45,000.00
WA	FS1000000	0.00	0.00	0.00
WA	FS1001100	0.00	346,000.00	346,000.00
WA	FS1001500	0.00	46,000.00	46,000.00
WA	FS1005100	0.00	100,000.00	100,000.00
TF	GD0703000	0.00	44,328.00	44,328.00
FG	GD0703000	0.00	145,500.00	145,500.00
FG	GD0703000 (EQU)	0.00	115,000.00	115,000.00
	TOTAL	\$1,054,271.84	\$103,416,676.90	\$1,080,160,912.97

AMEN	DMENT OF SOLICITATION	/MODIFICATION (	OF CONTRACT	1, CONTRACT ID CO	DE	PAGE 1	OF PAGI
2. AMENDMEN	T/MODIFICATION NO. A210	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCH/	ASE REQ. NO.	5. PROJEC	T NO. (If a	pplicble)
6. ISSUED BY	CODE	100000000	7. ADMINISTERED BY (II	other than Item 6)	CODE		
U.S. Denartm	nent of Energy		1			<u> </u>	
	·						
TJNAF Site (							
12000 Jeffers	son Avenue						
	vs, VA 23606				·		
	ADDRESS OF CONTRACTOR (No., street, co	••		(X) 9A. AMENDMEN	IT OF SOLIC	IATION NO	,
Southeastern	universities Research Association, Inc	·					
1200 New Yo	ork Avenue, NW			00 04750 1055	17774		
Washington,	D.C. 20005			9B. DATED (SEE	(IEM TT)		
				10A MODIFICA	TION OF CO	ALTOACTIC	0000410
		•		10A. MODIFICA		NIRACI/O	HDEK NO.
				DE-AC05-84E		<del></del>	<del></del>
				X TOB. DATED (SE	E HEW III		
CODE	ica	CILITY CODE		August 2 400	. A		
		M ONLY APPLIES TO	AMENDMENTS OF	August 3, 198 SOLICITATIONS	<del>"1</del>	···	
	knowledge receipt of this amendment prior to	••		•	•		الاستعادية
	ng items 8 and 15, and returning ate letter or telegram which includes a refere	copies of the amendment; (b	· · · · · · · · · · · · · · · · · · ·				
12. ACCOUNT	ING AND APPROPIRATION DATA (If required	1)					
		ONLY APPLIES TO MO THE CONTRACT/ORD			RS.		
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PUR NO. IN ITEM 10A.	SUANT TO: (Specify authority	) THE CHANGES SET FORT	H IN ITEM 14 ARE MAI	DE IN THE CO	ONTRACT	DRDER
	B. THE ABOVE NUMBERED CONTRACT/ appropriation date, etc.) SET FORTH II	NITEM 14, PURSUANT TO T	HE AUTHORITY OF FAR 43		anges in pay	ring office,	
	C. THIS SUPPLEMENTAL AGREEMENT IS						
Х	Increase in obligation of funds in accordance		Obligation of Funds."				
	D. OTHER (Specify type of modification a	nd authority)					
E. IMPORT	ANT: Contractor X is not,	is required to sign th	is document and retu	urn — 2 — co	pies to the	he issuin	g office.
14. DESCRIPT	ION OF AMENDMENT/MODIFICATION (Organ	nized by UCF section heading	s, including solicitation/cont	ract subject matter whe	re feasible.)		
		SEE FOLLO	WING PAGES				
							•
		•					
_				ungad ramaina (	and agreed for 40 -14	force and	affact
	vided herein, all terms and conditions of the d	ocument referenced in Item 9	A or 10A, as heretofore cha	riged, remains unchange CONTRACTING OFFICE	ER (Type or	print)	BITOCE.
IDA, NAME A	ND TITLE OF SIGNER (Type or print)		TON HOME AND THE OF	. Jun ROTHE OF THE		C-141-41	
			1				
		LICA DATE MAUSA	James W. Skinner, Co			liec	DATE SIGN
15B. CONTRA	CTOR/OFFEROR	16C. DATE SIGNED	16B UNITED STATES OF	AINCHIVA		100.	DATE SIGNI
			Janes VV.	Junes		_ 9	/z8/ni
10	Construe of pareon authorized to cion	1	I // (Signatur	e of Contracting Officer	)	I '.	, - <i>,</i> 01

Contract No. DE-AC05-84ER40150 Modification No. A210 Page 2 of 4

1. The amount obligated under this contract is increased by \$2,895,922.33 and is changed from \$1,080,160,912.97 to \$1,083,056,835.30. As a result, the first sentence of paragraph (a) of Clause I.79, "Obligation of Funds," is changed to read as follows:

Obligation of Funds. The amount presently obligated by the Government with respect to this contract is as follows:

Fund Type	B&R Code	Change	FY01	To Date
TE	EW3110022	0.00	0.00	50,000.00
YA	EB550000	0.00	491,600.00	491,600.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KA043012	0.00	5,000.00	5,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	0.00	5,746,000.00	16,269,575.00
· WA	KB0102011	0.00	40,599,000.00	120,334,411.00
·WA	KB0102011 (AIP A001)	0.00	1,288,000.00	4,088,000.00
WA	KB0102011 (GPP)	354,000.00	983,000.00	2,513,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102011 (EQG) KB0102012 (AIP A001)	0.00	0.00	0.00
WA	KB0102012 (EQU)	(354,000.00)	4,536,000.00	19,304,398.00
WA	KB0102012 (LLQG) KB0102012 (01CG)	0.00	0.00	0.00
WA	KB0102012 (0100) KB0102012 (EQUEQU01CG)	0.00	1,016,000.00	1,016,000.00
WA	KB0102012 (EQUEQUOTOG)	0.00	18,324,000.00	55,089,425.00
WA	KB0102002 (AIP)(A001)	0.00	0.00	1,600,000.00
	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	(80,000.00)	938,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	996,002.00	2,116,002.00
WA		0.00	340,000.00	340,000.00
WA	KB0301020 (EQU EQU)	0.00	0.00	200,000.00
WA	KC0301030 392100000	0.00	0.00	653,176.00
YA WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	· · · · · · · · · · · · · · · · · · ·	0.00	0.00	645,000.00
WA	39KB00000 (GPE300)	0.00	0.00	51,050,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	375,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	44,745.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	6,861.00
WA	35KS01000	0.00	0.00	49,618.00
4V	KT0101011	0.00	0.00	496,000.00
YA	KT0101012	0.00	0.00	380,000.00
YA	KT0101014	0.00	0.00	33,000.00
4V	<b>КТ0101012</b>			•
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	100,000.00	175,600.00
WA	KP1402010 (EQU)	0.00	0.00	339,400.00

Received Time Oct.10. 8:31AM

Contract No. DE-AC05-84ER40150 Modification No. A210 Page 3 of 4

₹ 1				
Fund Type	B&R Code	Change	FY01	To Date
WA	KP1401030	0.00	55,000.00	55,000.00
WA	KP1401030 (EQU EQU)	0.00	465,000.00	465,000.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
Ϋ́Α	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
ΥA	KC0701030	0.00	0.00	5,000.00
ΥA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
ΥA	KT0101025	0.00	0.00	9,702.00
Ϋ́A	KU0100000	0.00	0.00	484,000.00
Ϋ́A	KT0201013	0.00	0.00	87,300.00
Ϋ́A	WB0000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1 Y	650102000 (MC30000A003)	0.00	24,000.00	24,000.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1 Y	650102000 (AGR94-002) 650102000 (OP AGR00-004)	0.00	0.00	11,250.00
1Y	650102000 (GP AGR00-004)	0.00	2,500.00	2,500.00
YA	AT2540000	0.00	0.00	5,000.00
3Y	400412000 (AGRY1OR133700)	0.00	42,456.31	42,456.31
3T	400403109 (AGRSURA-2001-W004)	2,835,922.33	2,835,922.33	2,835,922.33
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	400403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
	400403309 (OP AGR-27199MR 113030)	0.00	0.00	9,029,126.21
3T	400403309 (OF AGR-004 -0435) 400403309 (AGRN0001401-F-0171)	0.00	4,390,097.08	4,390,097.08
TE	400403309 (AGNN0001401-F-01717)	0.00	392,979.61	392,979.61
3T	400403309 (AGRN00014-01-F-01718)	0.00	24,271.84	24,271.84
3T	KJ0102000	0.00	0.00	420,346.00
YA		0.00	0.00	50,909.00
WA	KJ0200000	0.00	50,000.00	150,000.00
WA TO	KJ0101030	0.00	0.00	599,853.00
TC	820101000 (OP)	0.00	0.00	0.00
TC	820201000 (OP)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER4015000019 CR40)	0.00	3,347,076.00	5,212,076.00
TC	820201000 (OP TSKER401501111J CR40)	0.00	17,111.00	17,111.00
TC	820201000 (OP TSKER 40150JLAAA CR40)	0.00	19,056,821.00	28,988,821.00
TC	820201000 (OP TSKER40150TJAAA CR40)	0.00	0.00	957,864.00
TC	DP0404012 (OP)	0.00	0.00	644,134.00
TC TC	39DP04000		0.00	395,000.00
TC	39DP04040	0.00		
TC	39DP08170	0.00	(70,000.00)	(70,000.00)
2Y	600301010 (AGR-2001-W003)	0.00	1,000.00	1,000.00
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	0.00	494,000.00
	Received Time Oct.10. 8:31AM			
	· ·			

Contract No. DE-AC05-84ER40150 Modification No. A210 Page 4 of 4

Fund Type	B&R Code	Change	FY01	To Date
2Y	600305000 (OP AGR2000W003)	0.00	6,000.00	20,000.00
2Y	600305000 (OP AGR2000W002)	0.00	25,000.00	30,000.00
2Y	600302000 (OP AGR2000W001)	0.00	13,934.06	90,000.00
SA	YN1901000	0.00	0.00	98,652.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	0.00	200,000.00
WA	KB0401052	0.00	387,000.00	387,000.00
WA	KX0201000	0.00	45,000.00	45,000.00
WA	FS1000000	0.00	0.00	0.00
WA	FS1001100	52,000.00	398,000.00	398,000.00
WA	FS1001500	0.00	46,000.00	46,000.00
WA	FS1005100	(25,000.00)	75,000.00	75,000.00
WA	FS1002300	33,000.00	33,000.00	33,000.00
TF	GD0703000	0.00	44,328.00	44,328.00
FG	GD0703000	0.00	145,500.00	145,500.00
FG	GD0703000 (EQU)	0.00	115,000.00	115,000.00
	TOTAL	\$2,895,922.33	\$106,312,599.23	\$1,083,056,835.30

AMEN	DMENT OF SOLICITATION	MODIFICATION C	F CONTRACT	1. 0	CONTRACT ID C	ODE	PAGE	OF PA	AGES
2. AMENDMEN	T/MODIFICAITON NO. A211	3. EFFECTIVE DATE	4. REQUISITION/PURCHA	ASE RE	Ω, ΝΟ.	5. PROJECT	NO. (If ap	oplicble)	
6. ISSUED BY	CODE	10,1,0,1	7. ADMINISTERED BY (If	other	than Item 6)	CODE	T		
II C Doppeden	acet of Energy		1		i		L		
•	nent of Energy								
TJNAF Site C					, !				
12000 Jeffers	son Avenue		1		<b>:</b>				
Newport New	rs, VA 23606				<u>:</u>				
	ADDRESS OF CONTRACTOR (No., street, co	•		(X)	9A. AMENDME	NT OF SOLICIA	ATION NO.	•	
Southeastern	Universities Research Association, Inc	l <b>.</b>					•		
1200 New Yo	ork Avenue, NW				9B. DATED (SE	CITCM 11)		<u> </u>	
Washington,	D.C. 20005				Jab. DATED (SE	ETTENTITY			
					10A. MODIFIC	ATION OF CON	ITRACT/O	BDER NO	<del>,                                     </del>
					DE-AC05-84		11140170	, DEITH	
		•			10B. DATED (S				
		,		Х					
CODE	IFA	ACILITY CODE			   August 3, 19	84			
JODE -	the state of the s	M ONLY APPLIES TO	AMENDMENTS OF	SOLI			···		
							_		
PLACE DESIGN your desire to o	ate letter or telegram which includes a refere IATED FOR THE RECEIPT OF OFFERS PRIOR change an offer already submitted, such chan nd is received prior to the opening hour and d	TO THE HOUR AND DATE SP I'ge may be made by telegram	PECIFIED MAY RESULT IN F	4FJEC	TION OF YOUR O	JEFEK. IT DV V	intue of this	s amenor	ment
12 ACCOUNT	ING AND APPROPIRATION DATA (If required	4)			-		•		
Increase \$5,0		-,							
micrease 40,0	13. THIS ITEM O	ONLY APPLIES TO MO THE CONTRACT/ORD	DIFICATION OF CO ER NO. AS DESCRI	NTR. BED	ACTS/ORDE IN ITEM 14	RS.	· · · · · · · · · · · · · · · · · · ·		
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PUR NO. IN ITEM 10A.	SUANT TO: (Specify authority	) THE CHANGES SET FORT	HINI	TEM 14 ARE MA	ADE IN THE CO	NTRACT (	ORDER	
	B. THE ABOVE NUMBERED CONTRACT/ appropriation date, etc.) SET FORTH II	N ITEM 14, PURSUANT TO TH	HE AUTHORITY OF FAR 43			changes in payi	ing office,		
	C. THIS SUPPLEMENTAL AGREEMENT IS				:				
X	Increase in obligation of funds in according		bligation of Funds."						
	D. OTHER (Specify type of modification a							•	
_					:				
	ANT: Contractor x is not,	is required to sign thi				opies to th	ne issuin	g offic	:е.
14. DESCRIPT	ION OF AMENDMENT/MODIFICATION (Orga	SEE FOLLO	s, including solicitation/cont WING PAGES	uract s	ODJACE MITTEL MI	ere reasine.)			
			,		ı				
	•	•			:				
					!				
	•				•				
Evocat as ass	vided herein, all terms and conditions of the d	ocument referenced in Item Q	A or 10A, as heretofore ch	anged.	, remains unchan	ged and in full	force and	effect.	
	ND TITLE OF SIGNER (Type or print)	, , , , , , , , , , , , , , , , , , ,	16A. NAME AND TITLE O	F CON	ITRACTING OFF	ICER (Type or	print)		
			James W. Skinner, Co	ontrac	cting Officer				
15B. CONTRA	ACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF	AME	YCA ~		16C.	DATE S	IGNE
	1		Chaver U	لخسرير	Kinnes		15	1-4-	01
	Signature of person authorized to sign)		1	re of (	ontracting Offic	er)	-1/0	- 1-	71

Contract No. DE-AC05-84ER40150 Modification No. A211 Page 2 of 4

1. The amount obligated under this contract is increased by \$5,077,000.00 and is changed from \$1,083,056,835.30 to \$1,088,133,835.30. As a result, the first sentence of paragraph (a) of Clause I.79, "Obligation of Funds," is changed to read as follows:

Fund Type	B&R Code	Change	FY02	To Date
TE	EW3110022	0.00	0.00	50,000.00
YA	EB550000	0.00	0.00	491,600.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KA043012	0.00	0.00	5,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	0.00	0.00	16,269,575.00
WA	KB0102011	2,600,000.00	2,600,000.00	122,934,411.00
WA	KB0102011 (AIP A001)	50,000.00	50,000.00	4,138,000.00
WA	KB0102011 (GPP)	0.00	0.00	2,513,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP A001)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	0.00	19,304,398.00
WA	KB0102012 (01CG)	0.00	0.00	0.00
WA	KB0102012 (EQUEQU01CG)	0.00	0.00	1,016,000.00
WA	KB0102012	600,000.00	600,000.00	55,689,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	938,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	0.00	2,116,002.00
WA	KB0301020 (EQU EQU)	0.00	0.00	340,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
· TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	ი.ბბ	0.80	175,600.00
WA	KP1402010 (EQU)	, 0.00	0.00	339,400.00

Contract No. DE-AC05-84ER40150 Modification No. A211 Page 3 of 4

Fund Type	B&R Code	Change	FY02	To Date
WA	KP1401030	0.00	0.00	55,000.00
WA	KP1401030 (EQU EQU)	0.00	0.00	465,000.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
Ϋ́A	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00
	KT0101017	0.00	0.00	412,000.00
YA	KT0101017	0.00	0.00	31,350.00
YA		0.00	0.00	5,000.00
YA	KT0101019	0.00	0.00	9,702.00
YA	KT0101025	0.00	0.00	484,000.00
YA	KU0100000	0.00	0.00	87,300.00
YA	KT0201013	0.00	0.00	116,000.00
YA	WB0000000	0.00	0.00	988,085.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	80,100.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	24,000.00
1Y	650102000 (AGR-2001-S002)	0.00	0.00	253,469.00
1Y	650102000 (AGR94-002)	0.00	0.00	11,250.00
1Y	650102000 (OP AGR00-004)	0.00	0.00	2,500.00
1Y	650102000 (AGRS003)	0.00	0.00	5,000.00
YA	AT2540000	0.00	0.00	42,456.31
3Y	400412000 (AGRY10R133700)	0.00	0.00	2,835,922.33
<b>3</b> T	400403109 (AGRSURA-2001-W004)	0.00	0.00	11,744,355.00
3T	400403309 (OP AGR000096)	0.00	0.00	12,135.92
3T	400403309 (OP AGR27199MPHS058)	0.00	0.00	9,029,126.21
TE	400403309 (OP AGR-00-F-0439)	0.00	0.00	4,390,097.08
3Т	400403309 (AGRN0001401-F-0171)	0.00	0.00	392,979.61
3T	400403309 (AGPN0001401-F-0171A)	0.00	0.00	24,271.84
<b>3</b> T	400403309 (AGRN00014-01-F-0171B)	0.00	0.00	420,346.00
YA	KJ0102000		0.00	50,909.00
WA	KJ0200000	0.00	0.00	150,000.00
WA	KJ0101030	0.00	0.00	599,853.00
TC	820101000 (OP)	0.00	0.00	0.00
TC	820201000 (OP)	0.00	0.00 0.00	42,733.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	0.00
TC .	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER401501111J)	0.00	00.00	(42,733.00)
TC	820201000 (OP TSKER4015000019 CR40)	0.00	75,000.00	5,287,076.00
TC	820201000 (OP TSKER401501111J CR40)	75,000.00	0.00	17,111.00
TC	820201000 (OP TSKER 40150JLAAA CR40)	0.00		30,315,821.00
TC	820201000 (OP TSKER40150TJAAA CR40)	1,327,000.00	1,327,000.00	957,864.00
TC	DP0404012 (OP)	0.00	0.00	644,134.00
TC	39DP04000	0.00	0.00 0.00	395,000.00
TC	39DP04040	0.00	0.00	(70,000.00)
TC	39DP08170	0.00	0.00	1,000.00
2Y	600301010 (AGR-2001-W003)	0.00	0.00	200,000.00
2Y	600301010 (OP AGR98003105)	0.00		
2Y	600305000 (OP AGR99W001)	00.0	0.00	494,000.00

Contract No. DE-AC05-84ER40150 Modification No. A211 Page 4 of 4

Fund Type	B&R Code	Change	FY02	To Date
2Y	CONSTRUCT (OR ACRONOMINOS)	0.00	0.00	20,000,00
-	600305000 (OP AGR2000W003)			20,000.00
2Y	600305000 (OP AGR2000W002)	0.00	0.00	30,000.00
2Y	600302000 (OP AGR2000W001)	0.00	0.00	90,000.00
\$A	YN1901000	0.00	0.00	98,652.00
WA	EL1703000(OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	0.00	200,000.00
WA	KB0401052	0.00	0.00	387,000.00
WA	KX0201000	0.00	0.00	45,000.00
WA	FS1000000	0.00	0.00	0.00
WA	FS1001100	180,000.00	180,000.00	578,000.00
WA	FS1001500	22,000.00	22,000.00	68,000.00
WA	FS1005100	100,000.00	100,000.00	175,000.00
WA	FS1002300	0.00	0.00	33,000.00
WA	FS1002400	63,000.00	63,000.00	63,000.00
WA	FS1009300	60,000.00	60,000.00	60,000.00
TF	GD0703000	0.00	0.00	44,328.00
FG	GD0703000	0.00	0.00	145,500.00
FG	GD0703000 (EQU)	0.00	0.00	115,000.00
	TOTAL	\$5,077,000.00	\$5,077,000.00	\$1,088,133,835.30

AMENDMENT OF SOLIC	ITATION/	MODIFICATION (	OF CONTRACT	1. (	CONTRACT ID CO	DE	PAGE	OF PA	AGES ⊿
2. AMENDMENT/MODIFICATION NO. A212		3. EFFECTIVE DATE SEE BLOCK 16C.	4. REQUISITION/PURCH/	ASE R	EQ. NO.	5. PROJECT	T NO. (If a	pplicble)	
6. ISSUED BY	CODE		7. ADMINISTERED BY (I	fother	than Item 6)	CODE			
U.S. Department of Energy									<del></del>
TJNAF Site Office									
12000 Jefferson Avenue									
Newport News, VA 23606  NAME AND ADDRESS OF CONTRACTOR	No street cou	inty State and 7IP Code)		(X)	19A. AMENDMEN	IT OF SOLICE	ATION NO		
Southeastern Universities Research Ass		•		1//		i or borion	A (10/11/10	•	
	sociation, inc.			1					
1200 New York Avenue, NW					9B. DATED (SEE	ITEM 11)			
Vashington, D.C. 20005				l					
				<del>                                     </del>	10A. MODIFICA	TION OF CON	NTRACT/O	RDER NO	).
				1	DE-AC05-846	R40150			
•				Ιx	10B. DATED (SI	E ITEM 11)			
				] ``					
CODE		CILITY CODE		L	August 3, 198	14			
11	. THIS ITEN	M ONLY APPLIES TO	AMENDMENTS OF	SOL	ICITATIONS				
or (c) By separate letter or telegram which implement of the PLACE DESIGNATED FOR THE RECEIPT OF the control of the second submit of the control of the cont	DEFERS PRIOR ted, such charging hour and da	TO THE HOUR AND DATE SI ge may be made by telegram site specified.	PECIFIED MAY RESULT IN I	egram	or letter makes re	ference to the	/INTUR OF TOI	s amenon	ment
13. TI	IS ITEM O	NLY APPLIES TO MOTHE CONTRACT/ORD	DIFICATION OF CO DER NO. AS DESCRI	NTR	ACTS/ORDEI IN ITEM 14.	RS.			
NO. IN ITEM 10A.	D CONTRACT/0	SUANT TO: (Specify authority DRDER IS MODIFIED TO REF	LECT THE ADMINISTRATIV	/E CH/	ANGES (such as c			ORDER	
		I ITEM 14, PURSUANT TO T ENTERED INTO PURSUANT		3. 103(	D).				
X Increase in obligation of f									
D. OTHER (Specify type of	modification ar	nd authority)	Junganori Oi I diluo.					<del></del>	
E. IMPORTANT: Contractor X	is not, 🔲	is required to sign th	is document and ret	turn	2 c	opies to th	he issuir	ng offic	<u></u>
14. DESCRIPTION OF AMENDMENT/MODIF	ICATION (Organ	nized by UCF section heading SEE FOLLO	s, Including solicitation/con WING PAGES	tract (	subject matter wh	ere feasible.)			
•	•								
Except as provided herein, all terms and con	ditions of the d	ocument referenced in Item 9	A or 10A, as heretofore ch	nangeo	I, remains unchan	ged and in ful	force and	effect.	
15A. NAME AND TITLE OF SIGNER (Type o			16A. NAME AND TITLE O	OF CO	NTRACTING OFFI	CER (Type or	print)		
			James D. Baxter, Co	ntraci	ling Officer				
15B. CONTRACTOR/OFFEROR		15C, DATE SIGNED	16B. UNITED STATES OF			$\overline{\gamma}$	160	DATE S	IGNE
		ı			Contracting Office			- 15	2

NSN 7540-01-152-8070 Previous edition unusab Received Time Oct.24. 9:34AM STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243

Contract No. DE-AC05-84ER40150 Modification No. A212 Page 2 of 4

1. The amount obligated under this contract is increased by \$4,091,695.12 and is changed from \$1,088,133,835.30 to \$1,092,225,530.42. As a result, the first sentence of paragraph (a) of Clause I.79, "Obligation of Funds," is changed to read as follows:

Fund Type	B&R Code	Change	FY02	To Date
TE	EW3110022	0.00	0.00	50,000.00
YA	EB550000	0.00	0.00	491,600.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KA043012	0.00	0.00	5,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	0.00	0.00	16,269,575.00
WA	KB0102011	1,100,000.00	3,700,000.00	124,034,411.00
WA	KB0102011 (AIP A001)	0.00	50,000.00	4,138,000.00
WA	KB0102011 (GPP)	0.00	0.00	2,513,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP A001)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	0.00	19,304,398.00
WA	KB0102012 (01CG)	0.00	0.00	0.00
WA	KB0102012 (EQUEQU01CG)	0.00	0.00	1,016,000.00
WA	KB0102012	400,000.00	1,000,000.00	56,089,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	938,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	0.00	2,116,002.00
WA	KB0301020 (EQU EQU)	0.00	0.00	340,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
ΥA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
Ϋ́A	KT0101012	0.00	0.00	496,000.00
ΥA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
ΤF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	0.00	175,600.00
WA	KP1402010 (EQU)	0.00	0.00	339,400.00

Contract No. DE-AC05-84ER40150 Modification No. A212 Page 3 of 4

Fund Type	B&R Code	Change	FY02	To Date
WA	KP1401030	0.00	0.00	55,000.00
WA	KP1401030 (EQU EQU)	0.00	0.00	465,000.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
ΥF	KV0101014	0.00	0.00	612,000.00
YA	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00
YA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00	87,300.00
YA	WB000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR-2001-S002)	0.00	0.00	24,000.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1Y	650102000 (OP AGR00-004)	0.00	0.00	11,250.00
1Y	650102000 (AGRS003)	0.00	0.00	2,500.00
Ϋ́A	AT2540000	0.00	0.00	5,000.00
3Y	400412000 (AGRY10R133700)	0.00	0.00	42,456.31
3T	400403109 (AGRSURA-2001-W004)	0.00	0.00	2,835,922.33
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	400403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
3T	400403309 (OP AGR-00-F-0439)	0.00	0.00	9,029,126.21
3T	400403309 (AGRN0001401-F-0171)	51,695.15	51,695.15	4,441,792.23
3T	400403309 (AGPN0001401-F-0171A)	0.00	0.00	392,979.61
3T	400403309 (AGRN00014-01-F-0171B)	0.00	0.00	24,271.84
ΥA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	0.00	150,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER401501111J CR40)	50,000.00	125,000.00	5,337,076.00
TC	820201000 (OP TSKER 40150JLAAA CR40)	0.00	0.00	17,111.00
TC	820201000 (OP TSKER40150TJAAA CR40)	2,490,000.00	3,817,000.00	32,805,821.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	0.00	0.00	395,000.00
TÇ	39DP08170	0.00	0.00	(70,000.00)
2Y	600301010 (AGR-2001-W003)	0.00	0.00	1,000.00
	600301010 (AGR-2001-W003) 600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y 2Y	600305000 (OP AGR98003105)	0.00	0.00	494,000.00
<b>4</b> 1	OUUJUUU (OF AGINGSWOOT)	0.00	0.00	TUT,000.00

Contract No. DE-AC05-84ER40150 Modification No. A212 Page 4 of 4

Fund Type	B&R Code	Change	FY02	To Date
				00.000.00
2Y	600305000 (OP AGR2000W003)	0.00	0.00	20,000.00
2Y	600305000 (OP AGR2000W002)	0.00	0.00	30,000.00
2Y	600302000 (OP AGR2000W001)	0.00	0.00	90,000.00
\$A	YN1901000	0.00	0.00	98,652.00
WA	EL1703000 (OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	0.00	200,000.00
WA	KB0401052	0.00	0.00	387,000.00
WA	KX0201000	0.00	0.00	45,000.00
WA	FS1000000	0.00	. 0.00	0.00
WA	FS1001100	0.00	180,000.00	578,000.00
WA	FS1001500	0.00	22,000.00	68,000.00
WA	FS1005100	0.00	100,000.00	175,000.00
WA	FS1002300	0.00	0.00	33,000.00
WA	FS1002400	0.00	63,000.00	63,000.00
WA	FS1009300	0.00	60,000.00	60,000.00
TF	GD0703000	0.00	0.00	44,328.00
FG	GD0703000	0.00	0.00	145,500.00
FG	GD0703000 (EQU)	0.00	0.00	115,000.00
	TOTAL	\$4,091,695.15	\$9,168,695.15	\$1,092,225,530.45

AMENDMENT OF SOLICITATION	/MODIFICATION C	OF CONTRACT	1. CONTRACT ID CO	DDE	PAGE O	F PAGES
. AMENDMENT/MODIFICAITON NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHAS	E REQ. NO.	5. PROJECT	NO. (If applie	oble)
A213	October 24, 2001			1		
ISSUED BY CODE		7. ADMINISTERED BY (If o	ther than Item 6)	CODE	T	······································
S. Department of Energy						
NAF Site Office						
000 Jefferson Avenue						
ewport News, VA 23606  NAME AND ADDRESS OF CONTRACTOR (No., street, co	umb. Seeta and 7ID Code	1	X1 Iga. AMENDME	AT OF SOUR	ATION NO	
outheastern Universities Research Association, Inc	•	. ]_	X) 9A. AMENDME	TO SOLICI	ATTOM NO.	
	•	Ĭ				
00 New York Avenue, NW			9B. DATED (SEE	ITEM 11)		
ashington, D.C. 20005						
			10A. MODIFICA	TION OF CON	TRACT/ORDE	R NO.
·	•	}	DE-AC05-84	ER40150		
			X 10B. DATED (SI	EE ITEM 11)		
		Ĭ .				
	ACILITY CODE		August 3, 198	34		
11. THIS ITE	M ONLY APPLIES TO	AMENDMENTS OF S	OLICITATIONS			
			<u> </u>		1 .	
The above numbered solicitation is amended as set for	th in Item 14. The hour and d	ate specified for receipt of Of	fers Lisex	tended,	is not exten	ded.
ers must acknowledge receipt of this amendment prior to	the hour and date specified in	n the solicitation or as amend	ed, by one of the follo	wing method	<b>6</b> :	
						introd.
By completing items 8 and 15, and returning	_copies of the amendment; (b					
c) By separate letter or telegram which includes a refere	nce to the solicitation and ame	endment numbers. FAILURE	OF YOUR ACKNOWL	EDGMENT TO	BE RECEIVED	AT THE
(c) by separate letter of teleplain which includes a release ACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR ur desire to change an offer already submitted, such char	TO THE HOUR AND DATE SE	or letter provided each telegr	JECTION OF YOUR O	eference to the	rcue of this an solicitation a	nenament nd this
endment, and is received prior to the opening hour and d	ate specified.	Of ferrer, broadings agent relati	an or letter makes it	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	O SONGILULOTT U	na use
. ACCOUNTING AND APPROPIRATION DATA (If required	d)		•			
rease \$2,000,000						
13. THIS ITEM C	NLY APPLIES TO MO	DIFICATION OF CON	TRACTS/ORDE	RS.		
	THE CONTRACT/ORD					
CHECK ONE A. THIS CHANGE ORDER IS ISSUED PUR	SUANT TO: (Specify authority	) THE CHANGES SET FORTH	IN ITEM 14 ARE MA	DE IN THE CO	NTRACT ORE	<b>DE</b> R
NO. IN ITEM 10A.						
B. THE ABOVE NUMBERED CONTRACT/	ORDER IS MODIFIED TO REFL	ECT THE ADMINISTRATIVE	CHANGES (such as c	hanges in pay	ing office,	
appropriation date, etc.) SET FORTH	N ITEM 14, PURSUANT TO TI	HE AUTHORITY OF FAR 43.1	03(b).		•	
C. THIS SUPPLEMENTAL AGREEMENT IS						
X Increase in obligation of funds in acco	rdance with Clause I.79 °C	obligation of Funds."				
D. OTHER (Specify type of modification a	nd authority)					
J						
IMPORTANT: Contractor X is not,	is required to sign th	is document and retur	n — 2 c	opies to th	ne issuing (	office.
	=			ere feasible i		
4. DESCRIPTION OF AMENDMENT/MODIFICATION (Orga	SEE FOLLO	s, including solicitation/contra WING PAGES	or seplect metre: Wil	_, _ , _ , _ , _ , _ , _ , _ , _ , _ ,		
	OLL I ORGO					
,						
	•					
coept as provided herein, all terms and conditions of the c	focument referenced in Item 9	A or 10A, as heretofore chan	ged, remains unchan	ged and in full	force and effe	ct.
5A. NAME AND TITLE OF SIGNER (Type or print)		16A, NAME AND TITLE OF	CONTRACTING OFFI	CER (Type or I	print)	
OM. IMMIE MIND THEE OF GIOREIT (Type of Pint)		1				
		<b>J</b>				
		James W. Skinner, Cor	tracting Officer			
B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	168. UNITED STATES OF	MERICA		116C. DA	TE SIGNI
		Jank W. XK	unes		_   101	30/0
(Signature of person authorized to sign)	<del></del>	// (Signature	of Contracting Office	er)		10,0

Contract No. DE-AC05-84ER40150 Modification No. A213 Page 2 of 4

1. The amount obligated under this contract is increased by \$2,000,000 and is changed from \$1,092,225,530.45 to \$1,094,225,530.45. As a result, the first sentence of paragraph (a) of Clause I.79, "Obligation of Funds," is changed to read as follows:

TE YA	EW3110022 EB550000	0.00	2.00	
VA	EB550000		0.00	50,000.00
i A		0.00	0.00	491,600.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KA043012	0.00	0.00	5,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	350,000.00	350,000.00	16,619,575.00
WA	KB0102011	1,225,000.00	4,925,000.00	125,259,411.00
WA	KB0102011 (AIP A001)	0.00	50,000.00	4,138,000.00
WA	KB0102011 (GPP)	0.00	0.00	2,513,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP A001)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	0.00	19,304,398.00
WA	KB0102012 (01CG)	0.00	0.00	0.00
WA	KB0102012 (EQUEQU01CG)	0.00	0.00	1,016,000.00
WA	KB0102012	425,000.00	1,425,000.00	56,514,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA '	KB0181020	0.00	0.00	938,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	0.00	2,116,002.00
WA	KB0301020 (EQU EQU)	0.00	0.00	340,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	. 0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
<b>4</b> V	KT0101012	0.00	0.00	33,000.00
<del>1</del> Y	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	0.00	175,600.00
WA	KP1402010 (EQU)	0.00	0.00	339,400.00

Contract No. DE-AC05-84ER40150 Modification No. A213 Page 3 of 4

Fund Type	B&R Code	Change	FY02	To Date
WA	KP1401030	0.00	0.00	55,000.00
WA	KP1401030 (EQU EQU)	0.00	0.00	465,000.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
Ϋ́Α	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00
ΥA	KT0101017	0.00	0.00	412,000.00
ΥA	KT0101018	0.00	0.00	31,350.00
ΥA	KT0101019	0.00	0.00	5,000.00
ΥA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00	87,300.00
ΥA	WB0000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR-2001-S002)	0.00	0.00	24,000.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1Y	650102000 (OP AGR00-004)	0.00	0.00	11,250.00
1Y	650102000 (AGRS003)	0.00	0.00	2,500.00
Ϋ́A	AT2540000	0.00	0.00	5,000.00
3Y	400412000 (AGRY1OR133700)	0.00	0.00	42,456.31
3T	400403109 (AGRSURA-2001-W004)	0.00	0.00	2,835,922.33
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	400403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
3T	400403309 (OP AGR-00-F-0439)	0.00	00.0	9,029,126.21
3T	400403309 (AGRN0001401-F-0171)	0.00	51,695.15	4,441,792.23
3T	400403309 (AGPN0001401-F-0171A)	0.00	0.00	392,979.61
3T	400403309 (AGRN00014-01-F-0171B)	0.00	0.00	24,271.84
YA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	0.00	150,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER401501111J CR40)	0.00	125,000.00	5,337,076.00
TC	820201000 (OP TSKER 40150JLAAA CR40)	0.00	0.00	17,111.00
TC	820201000 (OP TSKER40150TJAAA CR40)	0.00	3,817,000.00	32,805,821.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DPQ4QQQ	0,00	0.00	6 <del>44</del> ,13 <del>4</del> .00
		0.00	0.00	395,000.00
TC	39DP04040		0.00	(70,000.00)
TC	39DP08170	0.00	0.00	1,000.00
2Y	600301010 (AGR-2001-W003)	0.00	0.00	200,000.00
2Y	600301010 (OP AGR98003105)	0.00	0.00	494,000.00
2Y	600305000 (OP AGR99W001) Received Time Nov. 5. 3:53PM	0.00	0.00	434,000.00

Contract No. DE-AC05-84ER40150 Modification No. A213 Page 4 of 4

Fund Type	B&R Code	Change	FY02	To Date
2Y	600305000 (OP AGR2000W003)	0.00	0.00	20,000.00
2Y	600305000 (OP AGR2000W002)	0.00	0.00	30,000.00
2Y	600302000 (OP AGR2000W001)	0.00	0.00	90,000.00
SA	YN1901000	0.00	0.00	98,652.00
WA	EL1703000 (OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	0.00	200,000.00
WA	KB0401052	0.00	0.00	387,000.00
WA	KX0201000	0.00	0.00	45,000.00
WA	FS1000000	0.00	0.00	0.00
WA	FS1001100	0.00	180,000.00	578,000.00
WA	FS1001500	0.00	22,000.00	68,000.00
WA	FS1005100	0.00	100,000.00	175,000.00
WA	FS1002300	0.00	0.00	33,000.00
WA	FS1002400	0.00	63,000.00	63,000.00
WA	FS1009300	0.00	60,000.00	60,000.00
TF	GD0703000	0.00	0.00	44,328.00
FG	GD0703000	0.00	0.00	145,500.00
FG	GD0703000 (EQU)	0.00	0.00	115,000.00
	TOTAL	\$2,000,000.00	\$11,168,695.15	\$1,094,225,530.45

AMENDMENT OF SOLICITATION	I/MODIFICATION	OF CONTRACT	1. CONTRACT ID CO	DDE	PAGE OF	PAGES
2. AMENDMENT/MODIFICATION NO.	3, EFFECTIVE DATE	4. REQUISITION/PURCHA	SE REQ. NO.	5. PROJECT	NO. (If applicable	e)
A214	November 1, 2001				• ••	
6. ISSUED BY CODE	1.	7. ADMINISTERED BY (If	other than Item 6)	CODE		
U.S. Department of Energy		7		•		
JNAF Site Office						
2000 Jefferson Avenue	•					
		(				
ewport News, VA 23606  NAME AND ADDRESS OF CONTRACTOR (No., street, contractor)	ounts' State and 7ID Code		(X) ISA. AMENDMEN	UT OF COLICIA	TON NO	
outheastern Universities Research Association, In-	••	}	(X) 9A. AMENDMEN	TI OF SOLICIA	ION NO.	
200 New York Avenue, NW	<b>v.</b>					•
·			98. DATED (SEE	E ITEM 11)		
ashington, D.C. 20005		Į				
	•	ļ.	10A, MODIFICA	TION OF CONT	RACT/ORDER I	NO.
		1	DE-AC05-84E	ER40150		
•			X 10B. DATED (SE	EE (TEM 11)		
	ACILITY CODE		August 3, 198	34		
11. THIS ITE	M ONLY APPLIES TO	AMENDMENTS OF S	SOLICITATIONS			
ACCOUNTING AND APPROPIRATION DATA (If require						
ACCOUNTING AND APPROPIRATION DATA (If require crease \$3,250,000  13. THIS ITEM ( IT MODIFIES CHECK ONE   A. THIS CHANGE ORDER IS ISSUED PUR NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT	ONLY APPLIES TO MO THE CONTRACT/ORD SUANT TO: (Specify authority	DER NO. AS DESCRIE ) THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE	BED IN ITEM 14. HIN ITEM 14 ARE MAI	DE IN THE CON		
ACCOUNTING AND APPROPIRATION DATA (If require crease \$3,250,000  13. THIS ITEM ( IT MODIFIES  CHECK ONE A. THIS CHANGE ORDER IS ISSUED PUR NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH	ONLY APPLIES TO MO THE CONTRACT/ORD ISUANT TO: (Specify authority  /ORDER IS MODIFIED TO REFI IN ITEM 14, PURSUANT TO TI	DER NO. AS DESCRIE ) THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43.	BED IN ITEM 14. HIN ITEM 14 ARE MAI	DE IN THE CON		
2. ACCOUNTING AND APPROPIRATION DATA (If require crease \$3,250,000  13. THIS ITEM (IT MODIFIES CHECK ONE A. THIS CHANGE ORDER IS ISSUED PUR NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH	ONLY APPLIES TO MOTHE CONTRACT/ORD SUANT TO: (Specify authority /ORDER IS MODIFIED TO REFI IN ITEM 14, PURSUANT TO TO SENTERED INTO PURSUANT	DER NO. AS DESCRIED THE CHANGES SET FORTH LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43.	BED IN ITEM 14. HIN ITEM 14 ARE MAI	DE IN THE CON		
2. ACCOUNTING AND APPROPIRATION DATA (If require crease \$3,250,000  13. THIS ITEM ( IT MODIFIES CHECK ONE   A THIS CHANGE ORDER IS ISSUED PUR NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH	ONLY APPLIES TO MO THE CONTRACT/ORD SUANT TO: (Specify authority  /ORDER IS MODIFIED TO REFI IN ITEM 14, PURSUANT TO TO S ENTERED INTO PURSUANT ordance with Clause 1.79 "O	DER NO. AS DESCRIED THE CHANGES SET FORTH LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43.	BED IN ITEM 14. HIN ITEM 14 ARE MAI	DE IN THE CON		
2. ACCOUNTING AND APPROPIRATION DATA (If require crease \$3,250,000  13. THIS ITEM (IT MODIFIES CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in account of the contract o	ONLY APPLIES TO MC THE CONTRACT/ORD SUANT TO: (Specify authority  /ORDER IS MODIFIED TO REFI IN ITEM 14, PURSUANT TO TO SENTERED INTO PURSUANT  ordance with Clause 1.79 "Claude authority)  I is required to sign the	DER NO. AS DESCRIE THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF:  Obligation of Funds."	BED IN ITEM 14.  HIN ITEM 14 ARE MAI  CHANGES (such as changes).	DE IN THE CON hanges in paying opies to the	s office,	200
2. ACCOUNTING AND APPROPIRATION DATA (If require crease \$3,250,000  13. THIS ITEM (IT MODIFIES CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in account of the contractor	ONLY APPLIES TO MO THE CONTRACT/ORD SUANT TO: (Specify authority)  /ORDER IS MODIFIED TO REFI IN ITEM 14, PURSUANT TO TO SENTERED INTO PURSUANT ordance with Clause 1.79 "Co and authority)  I is required to sign the solved by UCF section heading	DER NO. AS DESCRIE THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF:  Obligation of Funds."	BED IN ITEM 14.  HIN ITEM 14 ARE MAI  CHANGES (such as changes).	DE IN THE CON hanges in paying opies to the	s office,	775
2. ACCOUNTING AND APPROPIRATION DATA (If require crease \$3,250,000  13. THIS ITEM (IT MODIFIES CHECK ONE A THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in account of the contract of	ONLY APPLIES TO MO THE CONTRACT/ORD SUANT TO: (Specify authority)  /ORDER IS MODIFIED TO REFI IN ITEM 14, PURSUANT TO TO SENTERED INTO PURSUANT ordance with Clause 1.79 "Co and authority)  I is required to sign the solved by UCF section heading	DER NO. AS DESCRIE THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF:  Obligation of Funds."  is document and reture, including solicitation/contr	BED IN ITEM 14.  HIN ITEM 14 ARE MAI  CHANGES (such as changes).	DE IN THE CON hanges in paying opies to the	s office,	775
ACCOUNTING AND APPROPIRATION DATA (If require crease \$3,250,000  13. THIS ITEM ( IT MODIFIES CHECK ONE   A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH   C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in account of the contract	ONLY APPLIES TO MO THE CONTRACT/ORD SUANT TO: (Specify authority)  /ORDER IS MODIFIED TO REFI IN ITEM 14, PURSUANT TO TO SENTERED INTO PURSUANT ordance with Clause 1.79 "Co and authority)  I is required to sign the solved by UCF section heading	DER NO. AS DESCRIE THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF:  Obligation of Funds."  is document and reture, including solicitation/contr	BED IN ITEM 14.  HIN ITEM 14 ARE MAI  CHANGES (such as changes).	DE IN THE CON hanges in paying opies to the	s office,	200
2. ACCOUNTING AND APPROPIRATION DATA (If require crease \$3,250,000  13. THIS ITEM (IT MODIFIES CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in account of the contract o	ONLY APPLIES TO MO THE CONTRACT/ORD SUANT TO: (Specify authority)  /ORDER IS MODIFIED TO REFI IN ITEM 14, PURSUANT TO TO SENTERED INTO PURSUANT ordance with Clause 1.79 "Co and authority)  I is required to sign the solved by UCF section heading	DER NO. AS DESCRIE THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF:  Obligation of Funds."  is document and reture, including solicitation/contr	BED IN ITEM 14.  HIN ITEM 14 ARE MAI  CHANGES (such as changes).	DE IN THE CON hanges in paying opies to the	s office,	778
2. ACCOUNTING AND APPROPIRATION DATA (If require crease \$3,250,000  13. THIS ITEM (IT MODIFIES CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in account of the contract o	ONLY APPLIES TO MO THE CONTRACT/ORD SUANT TO: (Specify authority)  /ORDER IS MODIFIED TO REFI IN ITEM 14, PURSUANT TO TO SENTERED INTO PURSUANT ordance with Clause 1.79 "Co and authority)  I is required to sign the solved by UCF section heading	DER NO. AS DESCRIE THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF:  Obligation of Funds."  is document and reture, including solicitation/contr	BED IN ITEM 14.  HIN ITEM 14 ARE MAI  CHANGES (such as changes).	DE IN THE CON hanges in paying opies to the	s office,	200
2. ACCOUNTING AND APPROPIRATION DATA (If require crease \$3,250,000  13. THIS ITEM (IT MODIFIES CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in account of the contract o	ONLY APPLIES TO MO THE CONTRACT/ORD SUANT TO: (Specify authority)  /ORDER IS MODIFIED TO REFI IN ITEM 14, PURSUANT TO TO SENTERED INTO PURSUANT ordance with Clause 1.79 "Co and authority)  I is required to sign the solved by UCF section heading	DER NO. AS DESCRIE THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF:  Obligation of Funds."  is document and reture, including solicitation/contr	BED IN ITEM 14.  HIN ITEM 14 ARE MAI  CHANGES (such as changes).	DE IN THE CON hanges in paying opies to the	s office,	200
2. ACCOUNTING AND APPROPIRATION DATA (If require crease \$3,250,000  13. THIS ITEM (IT MODIFIES CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in account of the contract o	ONLY APPLIES TO MO THE CONTRACT/ORD SUANT TO: (Specify authority)  /ORDER IS MODIFIED TO REFI IN ITEM 14, PURSUANT TO TO SENTERED INTO PURSUANT ordance with Clause 1.79 "Co and authority)  I is required to sign the solved by UCF section heading	DER NO. AS DESCRIE THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF:  Obligation of Funds."  is document and reture, including solicitation/contr	BED IN ITEM 14.  HIN ITEM 14 ARE MAI  CHANGES (such as changes).	DE IN THE CON hanges in paying opies to the	s office,	
2. ACCOUNTING AND APPROPIRATION DATA (If require crease \$3,250,000  13. THIS ITEM (IT MODIFIES CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in account of the contract o	ONLY APPLIES TO MO THE CONTRACT/ORD SUANT TO: (Specify authority)  /ORDER IS MODIFIED TO REFI IN ITEM 14, PURSUANT TO TO SENTERED INTO PURSUANT ordance with Clause 1.79 "Co and authority)  I is required to sign the solved by UCF section heading	DER NO. AS DESCRIE THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF:  Obligation of Funds."  is document and reture, including solicitation/contr	BED IN ITEM 14.  HIN ITEM 14 ARE MAI  CHANGES (such as changes).	DE IN THE CON hanges in paying opies to the	s office,	200
ACCOUNTING AND APPROPIRATION DATA (If require crease \$3,250,000  13. THIS ITEM (IT MODIFIES CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in account of the contract o	ONLY APPLIES TO MC THE CONTRACT/ORD SUANT TO: (Specify authority  /ORDER IS MODIFIED TO REFI IN ITEM 14, PURSUANT TO TO SENTERED INTO PURSUANT  ordance with Clause 1.79 "Clause authority)  I is required to sign the snized by UCF section heading SEE FOLLO	DER NO. AS DESCRIE THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF:  Obligation of Funds."  is document and reture, including solicitation/contriving PAGES	BED IN ITEM 14.  HIN ITEM 14 ARE MAI  CHANGES (such as of 103(b).  ITIT —————————————————————————————————	DE IN THE CON hanges in paying opies to the ere feasible.)	issuing off	
2. ACCOUNTING AND APPROPIRATION DATA (If require crease \$3,250,000  13. THIS ITEM (IT MODIFIES CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in account of the Contractor Items of the Contractor	ONLY APPLIES TO MC THE CONTRACT/ORD SUANT TO: (Specify authority  /ORDER IS MODIFIED TO REFI IN ITEM 14, PURSUANT TO TO SENTERED INTO PURSUANT  ordance with Clause 1.79 "Clause authority)  I is required to sign the snized by UCF section heading SEE FOLLO	DER NO. AS DESCRIE THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF: Obligation of Funds."  is document and returns, including solicitation/contr WING PAGES	BED IN ITEM 14.  HIN ITEM 14 ARE MAI  CHANGES (such as of 103(b).  ITIT —————————————————————————————————	DE IN THE CON hanges in paying opies to the ere feasible.)	issuing off	
2. ACCOUNTING AND APPROPIRATION DATA (If require crease \$3,250,000  13. THIS ITEM (IT MODIFIES CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in account of the Contractor Improved the Contractor	ONLY APPLIES TO MC THE CONTRACT/ORD SUANT TO: (Specify authority  /ORDER IS MODIFIED TO REFI IN ITEM 14, PURSUANT TO TO SENTERED INTO PURSUANT  ordance with Clause 1.79 "Clause authority)  I is required to sign the snized by UCF section heading SEE FOLLO	DER NO. AS DESCRIE THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF:  Obligation of Funds."  is document and reture, including solicitation/contriving PAGES	BED IN ITEM 14.  HIN ITEM 14 ARE MAI  CHANGES (such as of 103(b).  ITIT —————————————————————————————————	DE IN THE CON hanges in paying opies to the ere feasible.)	issuing off	200
B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH I  C. THIS SUPPLEMENTAL AGREEMENT IS  X Increase in obligation of funds in accordance.	ONLY APPLIES TO MC THE CONTRACT/ORD SUANT TO: (Specify authority  /ORDER IS MODIFIED TO REFI IN ITEM 14, PURSUANT TO TO SENTERED INTO PURSUANT  ordance with Clause 1.79 "Clause authority)  I is required to sign the snized by UCF section heading SEE FOLLO	DER NO. AS DESCRIE THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF:  Obligation of Funds."  is document and reture, including solicitation/contriving PAGES	BED IN ITEM 14.  HIN ITEM 14 ARE MAI  CHANGES (such as change).  ITI — Contracting officers of the contracting of	DE IN THE CON hanges in paying opies to the ere feasible.)	issuing off	
2. ACCOUNTING AND APPROPIRATION DATA (If require crease \$3,250,000  13. THIS ITEM (IT MODIFIES CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH C. THIS SUPPLEMENTAL AGREEMENT IS Increase in obligation of funds in account of the company of th	ONLY APPLIES TO MC THE CONTRACT/ORD SUANT TO: (Specify authority  /ORDER IS MODIFIED TO REFI IN ITEM 14, PURSUANT TO TO SENTERED INTO PURSUANT  ordance with Clause 1.79 "Clause authority)  I is required to sign the snized by UCF section heading SEE FOLLO	DER NO. AS DESCRIE THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43. TO AUTHORITY OF: Obligation of Funds."  IS document and returns, including solicitation/contractive WING PAGES  A or 10A, as heretofore chains.	BED IN ITEM 14.  HIN ITEM 14 ARE MAI  CHANGES (such as of 103(b).  ITI ——————————————————————————————————	DE IN THE CON hanges in paying opies to the ere feasible.)	issuing off	ice.

Contract No. DE-AC05-84ER40150 Modification No. A214 Page 2 of 4

1. The amount obligated under this contract is increased by \$3,250,000 and is changed from \$1,094,225,530.45 to \$1,097,475,530.45. As a result, the first sentence of paragraph (a) of Clause I.79, "Obligation of Funds," is changed to read as follows:

Obligation of Funds. The amount presently obligated by the Government with respect to this contract is as follows:

Fund Type	B&R Code	Change	FY02	To Date
TE	EW3110022	0.00	0.00	50,000.00
YA	EB550000	0.00	0.00	491,600.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
, WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KA043012	0.00	0.00	5,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	100,000.00	450,000.00	16,719,575.00
WA	KB0102011	2,100,000.00	7,025,000.00	127,359,411.00
WA	KB0102011 (AIP A001)	0.00	50,000.00	4,138,000.00
WA	KB0102011 (GPP)	0.00	0.00	2,513,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP A001)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	0.00	19,304,398.00
WA	KB0102012 (01CG)	0.00	0.00	0.00
WA	KB0102012 (EQUEQU01CG)	0.00	0.00	1,016,000.00
WA	KB0102012	1,050,000.00	2,475,000.00	57,564,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	938,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	0.00	2,116,002.00
WA	KB0301020 (EQU EQU)	0.00	0.00	340,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
ΥA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101012 KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	0.00	175,600.00
· ·	KP1402010 KP1402010 (EQU)	0.00	0.00	339,400.00
WA	AF 1402010 (EQU)		0.00	,

Received Time Nov.19. 10:25AM

Contract No. DE-AC05-84ER40150 Modification No. A214 Page 3 of 4

Fund Type	B&R Code	Change	FY02	To Date
WA	KP1401030	0.00	0.00	55,000.00
WA	KP1401030 (EQU EQU)	0.00	0.00	465,000.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
YA	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00
YA	KT0101017	0.00	0.00	412,000.00
Ϋ́A	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00	87,300.00
ΥA	WB0000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR-2001-S002)	0.00	0.00	24,000.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1Y	650102000 (OP AGR00-004)	0.00	0.00	11,250.00
1Y	650102000 (AGRS003)	0.00	0.00	2,500.00
ΥA	AT2540000	0.00	0.00	5,000.00
3Y	400412000 (AGRY1OR133700)	0.00	0.00	42,456.31
3T	400403109 (AGRSURA-2001-W004)	0.00	0.00	2,835,922.33
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	400403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
3T	400403309 (OP AGR-00-F-0439)	0.00	0.00	9,029,126.21
3T	400403309 (AGRN0001401-F-0171)	0.00	51,695.15	4,441,792.23
3T	400403309 (AGPN0001401-F-0171A)	0.00	0.00	392,979.61
3T	400403309 (AGRN00014-01-F-0171B)	0.00	0.00	24,271.84
ΥA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	0.00	150,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER401501111J)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER401501111J CR40)	0.00	125,000.00	5,337,076.00
TC	820201000 (OP TSKER 40150JLAAA CR40)	0.00	0.00	17,111.00
TC	820201000 (OP TSKER40150TJAAA CR40)	0.00	3,817,000.00	32,805,821.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	0.00	0.00	395,000.00
TC	39DP08170	0.00	0.00	(70,000.00)
<b>2</b> Y	600301010 (AGR-2001-W003)	0.00	0.00	1,000.00

Received Time Nov.19. 10:25AM

Contract No. DE-AC05-84ER40150 Modification No. A214 Page 4 of 4

Fund Type	B&R Code	Change	FY02	To Date
av.	600204040 (OD ACD08002H0E)	0.00	0.00	200 000 00
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	0.00	494,000.00
2Y	600305000 (OP AGR2000W003)	0.00	0.00	20,000.00
2Y	600305000 (OP AGR2000W002)	0.00	0.00	30,000.00
2Y	600302000 (OP AGR2000W001)	0.00	0.00	90,000.00
SA	YN1901000	0.00	0.00	98,652.00
WA	EL1703000 (OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	0.00	200,000.00
WA	KB0401052	0.00	0.00	387,000.00
WA	KX0201000	0.00	0.00	45,000.00
WA	F\$1000000	0.00	0.00	0.00
WA	FS1001100	0.00	180,000.00	578,000.00
WA	FS1001500	0.00	22,000.00	68,000.00
WA	FS1005100	0.00	100,000.00	175,000.00
WA	FS1002300	0.00	0.00	33,000.00
WA	FS1002400	0.00	63,000.00	63,000.00
WA	FS1009300	0.00	60,000.00	60,000.00
TF	GD0703000	0.00	0.00	44,328.00
FG	GD0703000	0.00	0.00	145,500.00
FG	GD0703000 (EQU)	0.00	0.00	115,000.00
	TOTAL	\$3,250,000.00	\$14,418,695.15	\$1,097,475,530.45

AMENDMENT/MODIFICATION NO.  A215  November 18, 2001  7. ADMINISTERED BY (if other than Item 6)  J. S. Department of Energy  J.S.	AMEN	DMENT OF SOLICITATION	MODIFICATION (	OF CONTRACT	1:NTRACT ID CO	PAGE OF PAGE
A215 November 18, 2001  J. S. Department of Energy  J. Departm	2. AMENDMEN	IT/MODIFICAITON NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCH	ASE REQ. NO.	5. PROJECT NO. (If applicable)
J.S. BSUED BY  U.S. Department of Energy  I.NAF Site Office  12000 Jefferson Avenue  Newport News, VA. 23806  I.RAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  Southeastern Universities Research Association, Inc.  1200 New York Avenue, NW  Washington, D.C. 20005  I.D. AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  I.D. AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  I.D. AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  I.D. AMEN AVENUE, NW  Washington, D.C. 20005  I.D. AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  I.D. AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  I.D. AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  I.D. AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  I.D. AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  I.D. AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  I.D. AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  I.D. AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  I.D. AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  I.D. AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  I.D. AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  I.D. AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  I.D. AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  I.D. AND ADDRESS OF CONTRACTOR (No. and ZIP Code)  I.D. AND ADDRESS OF COUNTRACTOR (No. and ZIP Code)  I.D. AND ADDRESS OF COUNTRACTOR (No. and ZIP Code)  I.D. AND ADDRESS OF COUNTRACTOR (No. and ZIP Code)  I.D. AND ADDRESS OF COUNTRACTOR (No. and ZIP Code)  I.D. AND ADDRESS OF COUNTRACTOR (No. and ZIP Code)  I.D. AND ADDRESS OF COUNTRACTOR (No. and ZIP Code)  I.D. AND ADDRESS OF COUNTRACTOR (No. and ZIP Code)  I.D. AND ADDRESS OF COUNTRACTOR (No. and ZIP Code)  I.D. AND ADDRESS OF COUNTRACTOR (No. and ZIP Code)  I.D. A		A215	November 18, 2001			
TUNAF Site Office 12000 Jefferson Avenue Newport News, VA 23666 1 ANAE AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) 1 ANAE AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) 1 ANAE AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) 1 ANAE AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) 1 ANAE AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) 1 ANAE AND AVENUE, NW Washington, D.C. 20005  1 To A MODIFICATION OF CONTRACT/ORDER NO.  1 TO A MODIFICATION OF CONTRACT/ORDER NO.  2 DE-ACC95-44ER40150 1 TO A MODIFICATION OF CONTRACT/ORDER NO.  2 DE-ACC95-44ER40150 1 TO A MODIFICATION OF CONTRACT/ORDER NO.  2 DE-ACC95-44ER40150 1 TO A MODIFICATION OF CONTRACT/ORDER NO.  2 DE-ACC95-44ER40150 1 TO A MODIFICATION OF CONTRACT/ORDER NO.  2 DE-ACC95-44ER40150 1 TO A MODIFICATION OF CONTRACT/ORDER NO.  3 DE-ACC95-44ER40150 1 TO A MODIFICATION OF CONTRACT/ORDER NO.  3 DE-ACC95-44ER40150 1 TO A MODIFICATION OF CONTRACT/ORDER NO.  4 DE-ACC95-44ER40150 1 TO A MODIFICATION OF CONTRACT/ORDER NO.  4 DE-ACC95-44ER40150 1 TO A MODIFICATION OF CONTRACT/ORDER NO.  5 DE-ACC95-44ER40150 1 TO A MODIFICATION OF CONTRACTS/ORDERS.  1 TO MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN THE CONTRACT ORDER  1 THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specily authority) THE CHANGES SET FORTH IN ITEM 14. ARE MADE IN THE CONTRACT ORDER  2 NO. IN ITEM 10A.  3 THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, speroprisision date, etc.) SET FORTH IN TEN 14. PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  4 No. IN ITEM 10A.  5 THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, speroprisision date, etc.) SET FORTH IN ITEM 14. PURSUANT TO THE AUTHORITY OF.  5 DE-ACC95-44ER40150  1 THE CHANGE OF THE ADMINISTRAT	6. ISSUED BY	CODE		7. ADMINISTERED BY (	If other than Item 6)	CODE
Newport News, VA. 23906  NAME AND ADDRESS OF CONTRACTOR (No., etreet. county, State and ZIP Code)  Southeastern Universities Research Association, Inc.  1200 New York Avenue, NW  Washington, D.C. 20005    PACILITY CODE	U.S. Departm	nent of Energy				
Newport News, VA 23606  I NAME AND ADDRESS OF CONTRACTOR (No., etreet, county, State and ZIP Code)  Southeastern Universities Research Association, Inc.  1200 New York Avenue, NW  Washington, D.C. 20005  I T. THIS TITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS  The above numbered solicitation is amended as set forth in item 14. The hour and date specified in the solicitation or se amended, by one of the following methods:  a)By completing items 8 and 15, and returning	ΓJNAF Site (	Office				
DAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)    Southeastern Universities Research Association, Inc.	12000 Jeffers	son Avenue				
DAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)    Southeastern Universities Research Association, Inc.	Newport New	vs. VA 23606	•			
BB. DATED (SEE ITEM 11)		·	unty, State and ZIP Code)		(X) 9A. AMENDMEN	T OF SOLICIATION NO.
Vashington, D.C. 20005    BB. DATED (SEE ITEM 11)	Southeastern	n Universities Research Association, Inc	<b>).</b>			
The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Others	200 New Yo	ork Avenue, NW				
DE-ACOS-84ER40150 TOB. DATED (SEE ITEM 11)  August 3, 1984  11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS  The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers   is extended,   is not extended. Here must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:    Proposition   Items 8 and 15, and returning   copies of the amendment; (t) By acknowledging receipt of this amendment one occopy of the offer submitted; (t) By acknowledging receipt of this amendment one occopy of the offer submitted; (t) By acknowledging receipt of this amendment one occopy of the offer submitted; (t) By acknowledging receipt of this amendment one occopy of the offer submitted; (t) By acknowledging receipt of this amendment one occopy of the offer submitted; (t) By acknowledging receipt of this amendment on acknowledge and the acknowledge of the amendment of the offer submitted; (t) By acknowledging receipt of this amendment on acknowledge and the acknowledge of the offer submitted; (t) By acknowledging receipt of this amendment on acknowledge of the offer submitted; (t) By acknowledging receipt of this amendment on acknowledge of the offer submitted; (t) By acknowledging receipt of this amendment on acknowledge of the offer submitted; (t) By acknowledging receipt of this amendment on acknowledge of the offer submitted; (t) By acknowledging receipt of this amendment on acknowledge of the offer submitted; (t) By acknowledging receipt of this amendment on acknowledge of the offer submitted; (t) By acknowledging receipt of this amendment on acknowledge of the offer submitted; (t) By acknowledging receipt of this amendment on acknowledge of the offer submitted; (t) By acknowledging receipt of this amendment on acknowledge of the offer submitted; (t) By acknowledging receipt of this amendment on acknowledge of the offer submitted; (t) By acknowledging receipt of this amendment on	Vashington,	D.C. 20005			9B. DATED (SEE	ITEM 11)
DE-AC05-84ER40150 TOB. DATED (SEE ITEM 11)  August 3, 1984  11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS  The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers   is extended,   is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:  a)By completing items 8 and 15, and returning   copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. EALU, URL OF YOUNG ACKNOWLEDGMENT TO BE RECEIVED AT THE LACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFERS. It by virtue of this amendment, and is received prior to the opening hour and date specified.  2. ACCOUNTING AND APPROPIRATION DATA (if required)  13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS.  IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.  CHECK ONE   A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.  8. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF:  X Increase in obligation of funds in accordance with Clause 1.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  E. IMPORTANT: Contractor   X is not,   is required to sign this document and return   copies to the issuing office.  14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)			•		104 MODIFICA	TION OF CONTRACT/ORDER NO
TOBE DATED (SEE ITEM 11)  August 3, 1984  11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS  11. The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers						
The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers					TOP DATED IS	
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS  The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers					^	1
The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers	ODE					34
ffers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:  (b) By completing items 8 and 15, and returning		11. THIS ITE	M ONLY APPLIES TO	AMENDMENTS OF	SOLICITATIONS	
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  X Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  IMPORTANT: Contractor X is not,  is required to sign this document and return — copies to the issuing office.  I. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)	crease \$12	1,375,000 13. THIS ITEM O IT MODIFIES	NLY APPLIES TO MO	DER NO. AS DESCR	IBED IN ITEM 14.	
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  IMPORTANT: Contractor X is not, is required to sign this document and return — copies to the issuing office.  4. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)	OHECK, ONE	NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/	ORDER IS MODIFIED TO REFI	LECT THE ADMINISTRATI	VE CHANGES (such as ch	november to the second
Increase in obligation of funds in accordance with Clause I.79 "Obligation of Funds."  D. OTHER (Specify type of modification and authority)  IMPORTANT: Contractor X is not, I is required to sign this document and return — copies to the issuing office.  DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					3.103(b).	
D. OTHER (Specify type of modification and authority)  . IMPORTANT: Contractor X is not,  is required to sign this document and return — copies to the issuing office.  4. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)	x					
4. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)		1		Juliani of Farings		
4. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)	. IMPORT	ANT: Contractor x is not.	is required to sign th	is document and re	turn ———— co	opies to the issuing office.
			nized by UCF section heading	s, including solicitation/cor		
				10 m 400 m havestern	hannad generaliseb.	and more than full forces much offices
i i i i i i i i i i i i i i i i i i i		The same and the s	ocument referenced in Item 9			
				James W. Skinner, C	Contracting Officer	
	5B. CONTRA	CTOR/OFFEROR	15C. DATE SIGNED			16C. DATE SIGNI
5A. NAME AND TITLE OF SIGNER (Type or print)  16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  James W. Skinner, Contracting Officer	,			aver W	Klinnes	11-28-0
James W. Skinner, Contracting Officer  15B. CONTRACTOR/OFFEROR 15C. DATE SIGNED 16B. WNITED STATES OF AMERICA 16C. DATE SIGN	15	Signature of person authorized to sign)	<del></del>	(Signat	ure of Contracting Officer	11-20-0

Contract No. DE-AC05-84ER40150
Modification No. A215
Page 2 of 4

1. The amount obligated under this contract is increased by \$12,375,000 and is changed from \$1,097,475,530.45 to \$1,109,850,530.45. As a result, the first sentence of paragraph (a) of Clause I.79, "Obligation of Funds," is changed to read as follows:

Obligation of Funds. The amount presently obligated by the Government with respect to this contract is as follows:

Fund Type	B&R Code	Change	FY02	To Date
TE	EW3110022	0.00	0.00	50,000.00
YA	EB550000	0.00	0.00	491,600.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KA043012	0.00	0.00	5,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	1,500,000.00	1,950,000.00	18,219,575.00
WA	KB0102011	5,000,000.00	12,025,000.00	132,359,411.00
WA	KB0102011 (AIP A001)	0.00	50,000.00	4,138,000.00
WA	KB0102011 (GPP)	100,000.00	100,000.00	2,613,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP A001)	0.00	0.00	0.00
WA	KB0102012 (EQU)	100,000.00	100,000.00	19,404,398.00
WA	KB0102012 (01CG)	0.00	0.00	0.00
WA	KB0102012 (EQUEQU01CG)	0.00	0.00	1,016,000.00
WA	KB0102012	1,800,000.00	4,275,000.00	59,364,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	938,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	0.00	2,116,002.00
WA	KB0301020 (EQU EQU)	0.00	0.00	340,000.00
WA	KC0301030	0.00	0.00	200,000.00
ΥA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
Ϋ́A	KT0101012	0.00	0.00	496,000.00
ΥA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
			0.00	40,000.00
4V	KT0101018	0.00 0.00	0.00	13,000.00
TF	KP0302000	0.00	0.00	175,600.00
WA	KP1402010	0.00	0.00	339,400.00
WA	KP1402010 (EQU)	0.00	0.00	<i>559,</i> 400.00

Received Time Dec. 4. 11:52AM

Contract No. DE-AC05-84ER40150
Modification No. A215
Page 3 of 4

Fund Type	B&R Code	Change	FY02	To Date
WA	KP1401030	100,000.00	100,000.00	155,000.00
WA	KP1401030 (EQU EQU)	0.00	0.00	465,000.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF ·	KV0101014	0.00	0.00	612,000.00
YA	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00
YA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
ΥA	KT0201013	0.00	0.00	87,300.00
YA	WB0000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR-2001-S002)	0.00	0.00	24,000.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1Y	650102000 (AGR94-002)	0.00	0.00	
1Y				11,250.00
YA	650102000 (AGRS003)	0.00	0.00	2,500.00
	AT2540000	0.00	0.00	5,000.00
3Y	400412000 (AGRY1OR133700)	0.00	0.00	42,456.31
3T	400403109 (AGRSURA-2001-W004)	0.00	0.00	2,835,922.33
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	400403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
3T	400403309 (OP AGR-00-F-0439)	0.00	0.00	9,029,126.21
3T	400403309 (AGRN0001401-F-0171)	0.00	51,695.15	4,441,792.23
3T	400403309 (AGPN0001401-F-0171A)	0.00	0.00	392,979.61
3T	400403309 (AGRN00014-01-F-0171B)	0.00	0.00	24,271.84
YA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	0.00	150,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER401501111J CR40)	125,000.00	250,000.00	5,462,076.00
TC	820201000 (OP TSKER 40150JLAAA CR40)	0.00	0.00	17,111.00
TC	820201000 (OP TSKER40150TJAAA CR40)	3,600,000.00	7,417,000.00	36,405,821.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
ŦĊ.	39DP64646	0.00	0.00	395,000.00
TC	39DP08170	0.00	0.00	(70,000.00)
2Y	600301010 (AGR-2001-W003)	0.00	0.00	1,000.00

Contract No. DE-AC05-84ER40150 Modification No. A215 Page 4 of 4

Fund Type	B&R Code	Change	FY02	To Date
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	0.00	494,000.00
2Y	600305000 (OP AGR2000W003)	0.00	0.00	20,000.00
2Y	600305000 (OP AGR2000W002)	0.00	0.00	30,000.00
2Y	600302000 (OP AGR2000W001)	0.00	0.00	90,000.00
SA	YN1901000	0.00	0.00	98,652.00
WA	EL1703000 (OPFWP #EL17039)	0.00	0.00	25,000.00
WA ·	KB0401022	0.00	0.00	200,000.00
WA	KB0401052	0.00	0.00	387,000.00
WA	KX0201000	0.00	0.00	45,000.00
WA	FS1000000	0.00	0.00	0.00
WA	FS1001100	50,000.00	230,000.00	628,000.00
WA	FS1001500	0.00	22,000.00	68,000.00
WA	FS1005100	0.00	100,000.00	175,000.00
WA	FS1002300	0.00	0.00	33,000.00
WA	FS1002400	0.00	63,000.00	63,000.00
WA	FS1009300	0.00	60,000.00	60,000.00
TF	GD0703000	0.00	0.00	44,328.00
FG	GD0703000	0.00	0.00	145,500.00
FG	GD0703000 (EQU)	0.00	0.00	115,000.00
	TOTAL	\$12,375,000.00	\$26,793,695.15	\$1,109,850,530.45

AMENDMENT OF SOLICITATIO	N/MODIFICATION (	OF CONTRACT	1. CONTRACT ID CO	DE F	PAGE OF PAGES
2. AMENDMENT/MODIFICATION NO. M216	3. EFFECTIVE DATE October 24, 2001	4. REQUISITION/PURCHA	ASE REQ. NO.	5. PROJECT N	0. (If applicible)
6. ISSUED BY CODE	000001 21, 2001	7. ADMINISTERED BY (If	other than Item 6)	CODE	
U.S. Department of Energy		<b>-</b>		L	
•					
TJNAF Site Office			•		
12000 Jefferson Avenue					
Newport News, VA 23606					
8. NAME AND ADDRESS OF CONTRACTOR (No., street,	county, State and ZIP Code)		(X) 9A. AMENDMEN	IT OF SOLICIATI	ON NO.
Southeastern Universities Research Association, I	nc.	·	7		
1200 New York Avenue, NW					
Washington, D.C. 20005	·		9B. DATED (SEE	ITEM 11)	
·		į	10A. MODIFICA	TION OF CONTR	ACT/ORDER NO.
			DE-AC05-84E		
			X 10B. DATED (SE	E ITEM 11)	
				•	
	FACILITY CODE		August 3, 198	14	
11. THIS IT	EM ONLY APPLIES TO	AMENDMENTS OF	SOLICITATIONS		
Offers must acknowledge receipt of this amendment prior (a)By completing items 8 and 15, and returning or (c) By separate letter or telegram which includes a refe PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOr your desire to change an offer already submitted, such chamendment, and is received prior to the opening hour and 12. ACCOUNTING AND APPROPIRATION DATA (If requi	copies of the amendment; (b prence to the solicitation and ame OR TO THE HOUR AND DATE SF hange may be made by telegram it date specified.	) By acknowledging receipt endment numbers. FAILURE PECIFIED MAY RESULT IN R	of this amendment on e	Bach copy of the EDGMENT TO BE	RECEIVED AT THE
N/A	•				
	ONLY APPLIES TO MO	DIFICATION OF COL	NTRACTS/ORDEF	RS.	
IT MODIFIES	S THE CONTRACT/ORD	ER NO. AS DESCRI	BED IN ITEM 14.		
CHECK ONE  A. THIS CHANGE ORDER IS ISSUED PUNO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT appropriation data, etc.) SET FORTH	T/ORDER IS MODIFIED TO REFL I IN ITEM 14, PURSUANT TO TI	ECT THE ADMINISTRATIVE	E CHANGES (such as ch		
C. THIS SUPPLEMENTAL AGREEMENT					
X Deletion of the requirement for DOE		ractor personnel			
D. OTHER (Specify type of modification	and authority)				
				<del></del>	
E. IMPORTANT: Contractor is not,				-	issuing office.
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Or	ganized by UCF section heading: SEE FOLLO	s, including solicitation/cont WING PAGES	ract subject matter whe	re feasible.)	
•		•			
			•		
	•				
			. ,	:	
Except as provided herein, all terms and conditions of the	document referenced in Item 9				
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF	- CONTRACTING OFFIC	r⊏H (1ype or prin	τ)
	•	)			
Jary Long		James W. Skinner, Co	ntracting Officer		
158. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B UNITED STATES OF			16C. DATE SIGNED
Jerry P. Draayer, <u>Preside</u> r	nt 12/12/01	James W.	Thomas		1 dulla
(Signature of person authorized to sign)	'-', '5'	(Signatur	e of Contracting Officer	)	12/14/01

Contract No. DE-AC05-84ER40150 Modification No. M216 Page 2 of 2

- 1. The purpose of this modification is to delete the following clauses from Section I of the contract:
  - I.61 DEAR 952.204-2, SECURITY (SEP 1997)
  - I.62 DEAR 952.204-70, CLASSIFICATION/DECLASSIFICATION (SEP 1997)
  - I.63 DEAR 952.204-74, FOREIGN OWNERSHIP, CONTROL OR INFLUENCE OVER CONTRACTOR (APR 1984)
  - I-73 DEAR 970.5204-1(b), COUNTERINTELLIGENCE (SEP 1997)
- 2. All other terms and conditions remain the same.

AMEN	DMENT OF SOLICITATION	/MODIFICATION (	OF CONTRACT	1. CONTRACT ID CO	DE	PAGE	OF PAGES
2. AMENDMEN	IT/MODIFICAITON NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHA	ASE REQ. NO.	5. PROJECT	TNO. (If ap	plicble)
	A217	November 18, 2001			l l		
6. ISSUED BY	CODE		7. ADMINISTERED BY (If	other than Item 6)	CODE		
U.S. Departm	nent of Energy						,
TJNAF Site (	- ·						
			}				•
12000 Jeffers	son Avenue		İ				
	vs, VA 23606						
	ADDRESS OF CONTRACTOR (No., street, co		*	(X) 9A. AMENDMEN	IT OF SOLICIA	ATION NO.	
Southeastern	universitles Research Association, Inc	J.					
1200 New Yo	ork Avenue, NW			9B. DATED (SEE	STEM 111		
Washington,	D.C. 20005			Jab. DATED (GEE			
				10A. MODIFICA	TION OF CON	TRACT/OF	DER NO
	¢			DE-AC05-84E		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	DEITHO.
				100 DATED ISE			
				X TOB. DATED (SE			
CODE	IFA	CILITY CODE		August 3, 198	<b>44</b>		
		M ONLY APPLIES TO	AMENDMENTS OF			·	
The above	numbered solicitation is amended as set fort	h in Item 14. The hour and d	late specified for receipt of (	)ffers is ext	tended,	is not ex	tended.
	knowledge receipt of this amendment prior to		•		wing method:	<del>-</del> s:	
	ng items 8 and 15, and returning	copies of the amendment; (i			_		hmittad:
		• ''	. ,		• •		
LACE DESIGN	ate letter or telegram which includes a refere NATED FOR THE RECEIPT OF OFFERS PRIOR	TO THE HOUR AND DATE S	PECIFIED MAY RESULT IN F	REJECTION OF YOUR OF	FFER. If by vi	rtue of this	amendment
our desire to d	change an offer already submitted, such chan nd is received prior to the opening hour and d	ge may be made by telegram	or letter, provided each tele	gram or letter makes re	ference to the	solicitation	and this
menument, a	id is received blice to the obering tions and a	ata specifica.					
2. ACCOUNT	ING AND APPROPIRATION DATA (If required	1)	***				
ncrease \$45	5.187.000						
		NLY APPLIES TO MO	DIFICATION OF CO	NTRACTS/ORDER	₹S.		
		THE CONTRACT/ORD					
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURS	SUANT TO: (Specify authority	) THE CHANGES SET FORT	H IN ITEM 14 ARE MAI	DE IN THE CO	NTRACT C	RDER
	NO. IN ITEM 10A.	•					
	B. THE ABOVE NUMBERED CONTRACT/	ORDER IS MODIFIED TO REF	LECT THE ADMINISTRATIV	E CHANGES (such as ch	anges in payi	ng office,	
	appropriation date, etc.) SET FORTH If						
	C. THIS SUPPLEMENTAL AGREEMENT IS	ENTERED INTO PURSUANT	TO AUTHORITY OF:		· · · · · · · · · · · · · · · · · · ·		
Х	Increase in obligation of funds in accor	rdance with Clause I.79 "C	Obligation of Funds."				
	D. OTHER (Specify type of modification as						
E. IMPORT	ANT: Contractor X is not,	is required to sign th	is document and reti	ırn ——— co	pies to th	ie issuini	office.
14. DESCRIPT	ION OF AMENDMENT/MODIFICATION (Organ	nized by UCF section heading	s, including solicitation/cont	ract subject matter whe	re feasible.)		· · · · · · · · · · · · · · · · · · ·
			WING PAGES				
	,						
	•						
			4				
_						4mma J	li-ab
	vided herein, all terms and conditions of the d	ocument referenced in Item 9	A or 10A, as heretofore chi				Hect.
IDA. NAME A	ND TITLE OF SIGNER (Type or print)		I IVA. MANIE AND THE U	CONTINUOUND OFFIC	- mary parting	e: 11 16 <i>j</i>	
		0	James D. Baxter, Jr.,	Contracting Officer			
15B. CONTRA	CTOR/OFFEROR	15C. DATE SIGNED	168 ONITED STATES OF	AMERICA 1 /2		16C.	DATE SIGNED
			thouse of	Water 1		1	12.1.
10	Signature of person authorized to sign)	<del></del>   /	(Signatu	re of Contracting Officer	)	—  /∝	15110

Contract No. DE-AC05-84ER40150 Modification No. A217 Page 2 of 4

1. The amount obligated under this contract is increased by \$45,187,000 and is changed from \$1,109,850,530.45 to \$1,155,037,530.45. As a result, the first sentence of paragraph (a) of Clause I.79, "Obligation of Funds," is changed to read as follows:

Obligation of Funds. The amount presently obligated by the Government with respect to this contract is as follows:

Fund Type	B&R Code	Change	FY02	To Date
TE	EW3110022	0.00	0.00	50,000.00
YA	EB550000	0.00	0.00	491,600.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KA043012	0.00	0.00	5,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	2,950,000.00	4,900,000.00	21,169,575.00
WA	KB0102011	22,956,000.00	34,981,000.00	155,315,411.00
WA	KB0102011 (AIP A001)	1,250,000.00	1,300,000.00	5,388,000.00
WA	KB0102011 (GPP)	460,000.00	560,000.00	3,073,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP A001)	0.00	0.00	0.00
WA	KB0102012 (EQU)	4,850,000.00	4,950,000.00	24,254,398.00
WA	KB0102012 (01CG)	0.00	0.00	0.00
WA	KB0102012 (EQUEQU01CG)	59,000.00	59,000.00	1,075,000.00
WA	KB0102012	11,450,000.00	15,725,000.00	70,814,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	938,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	450,000.00	450,000.00	2,566,002.00
WA	KB0301020 (EQU EQU)	0.00	0.00	340,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	00.0	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	86.6	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	0.00	175,600.00
WA	KP1402010 (EQU)	0.00	0.00	339,400.00

Contract No. DE-AC05-84ER40150 Modification No. A217 Page 3 of 4

Fund Type	B&R Code	Change	FY02	To Date
· WA	KP1401030	240,000.00	340,000.00	395,000.00
WA	KP1401030 (EQU EQU)	0.00	0.00	465,000.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
YA	KC0204010	0.00	0.00	11,943.00
ΥA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00
ΥA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00 .	87,300.00
YA	WB000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR-2001-S002)	0.00	0.00	24,000.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1Y	650102000 (OP AGR00-004)	0.00	0.00	11,250.00
1Y	650102000 (AGRS003)	0.00	0.00	2,500.00
YA	AT2540000	0.00	0.00	5,000.00
3Y	400412000 (AGRY1OR133700)	0.00	0.00	42,456.31
3T	400403109 (AGRSURA-2001-W004)	0.00	0.00	2,835,922.33
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	400403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
3T	400403309 (OP AGR-00-F-0439)	0.00	0.00	9,029,126.21
3T	400403309 (AGRN0001401-F-0171)	0.00	51,695.15	4,441,792.23
3T	400403309 (AGPN0001401-F-0171A)	0.00	0.00	392,979.61
3T	400403309 (AGRN00014-01-F-0171B)	0.00	0.00	24,271.84
YA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	0.00	150,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER401501111J CR40)	0.00	250,000.00	5,462,076.00
TC	820201000 (OP TSKER 40150JLAAA CR40)	0.00	0.00	17,111.00
TC	820201000 (OP TSKER40150TJAAA CR40)	0.00	7,417,000.00	36,405,821.00
TC	DP0404012 (OP)	0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
	39DP04040	8.86	0.00	395,000.00
TC	39DP04040 39DP08170	0.00	0.00	(70,000.00)
TC	600301010 (AGR-2001-W003)	0.00	0.00	1,000.00
2Y				

AMENDMENT OF SOLICITATION	/MODIFICATION (	OF CONTRACT	1. CONTRACT ID CO	DE	PAGE OF	PAGES 4
2. AMENDMENT/MODIFICAITON NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHA	ASE REQ. NO.	6. PROJECT	NO. (If applicable)	,
A218	See Block 16C.					
6. ISSUED BY CODE		7. ADMINISTERED BY (IF	other than Item 6)	CODE	L	
U.S. Department of Energy						
TJNAF Site Office						
12000 Jefferson Avenue						
Newport News, VA 23606		, '				
8. NAME AND ADDRESS OF CONTRACTOR (No., street, c	ounty, State and ZIP Code)	<del></del>	(X) 9A. AMENDME	NT OF SOLICIA	TION NO.	
Southeastern Universities Research Association, In	c.					
1200 New York Avenue, NW						
Washington, D.C. 20005			9B. DATED (SEE	ITEM 11)		
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
					TRACT/ORDER N	Ю.
			DE-AC05-841			
			X 108. DATED (SI	E () EW( 11)		
0005	ACII ITV CODE	,	A.,	5.4		
	ACILITY CODE  M ONLY APPLIES TO	AMENDMENTS OF	August 3, 198   SOLICITATIONS	)4		
(T. URG TE	IN ONL! AFFLIES TO	ANIENDINE INTO OF	DOLIGITATIONS			
The above numbered solicitation is amended as set fo	rth in Item 14. The hour and d	ate specified for receipt of (	Offers is ex	tended, 🔲	is not extended	fa.
Offers must acknowledge receipt of this amendment prior	to the hour and date specified l	n the solicitation or as ame	nded, by one of the folio	owing methods	:	
(a)By completing items 8 and 15, and returning	copies of the amendment; (b	) By acknowledging receipt	of this amendment on	each copy of th	e offer submitte	d;
or (c) By separate letter or telegram which includes a refer PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR your desire to change an offer already submitted, such cha amendment, and is received prior to the opening hour and	R TO THE HOUR AND DATE SH Inge may be made by telegram	PECIFIED MAY RESULT IN I	HEJECTION OF YOUR O	FFER. IT DV VII	tue of this amen	ament
12. ACCOUNTING AND APPROPIRATION DATA (If require	ad)					
	,					
Increase \$11,391,150	ONLY APPLIES TO MO	DIEICATION OF CO	NTRACTS/ORDE	RS		**********
IT MODIFIES	THE CONTRACT/ORD	ER NO. AS DESCRI	BED IN ITEM 14.	10.		
CHECK ONE A. THIS CHANGE ORDER IS ISSUED PUI	RSUANT TO: (Specify authority	) THE CHANGES SET FORT	TH IN ITEM 14 ARE MA	DE IN THE CO	NTRACT ORDER	
B. THE ABOVE NUMBERED CONTRACT appropriation date, etc.) SET FORTH	ORDER IS MODIFIED TO REFL IN ITEM 14, PURSUANT TO TI	LECT THE ADMINISTRATIV HE AUTHORITY OF FAR 43	E CHANGES (such as cl., 103(b).	hanges in payir	ng office,	
C. THIS SUPPLEMENTAL AGREEMENT						
X Increase in obligation of funds in acc						
D. OTHER (Specify type of modification	and authority)					
E. IMPORTANT: Contractor X is not,	is required to sign th	is document and ret	urn c	opies to the	e issuing offi	ice.
••••••••••••••••••••••••••••••••••••••	•			·		
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Org	anized by UCF section heading SEE FOLLO	s, including solicitation/con WING PAGES	ract subject matter with	ere reasibic./		
					•	
			•			
Except as provided herein, all terms and conditions of the	document referenced in Item O	IA or 10A, se herstofore oh	anged, remains unchang	ged and in full 1	force and effect.	
Except as provided herein, all terms and conditions of the 15A. NAME AND TITLE OF SIGNER (Type or print)	document referenced in item a	16A. NAME AND TITLE O	F CONTRACTING OFFI	CER (Type or p	rint)	
			<u></u>			
		James D. Baxter, Jr.,			I16C, DATE	SIGNED
15B. CONTRACTOR/OFFEROR	15C, DATE SIGNED	16B. UNITED STATES OF	AMERICA		100. DATE	CIGIAED
		( tames I)	Note -		-1/2	1/00
(Signature of person authorized to sign)	İ	U / (Signati	ure of Contracting Office	H (		<u> </u>

NSN 7540-01-152-8070
Previous edition unusable Received Time Feb. 4. 9:59AM

STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243

Contract No. DE-AC05-84ER40150 Modification No. A218 Page 2 of 4

1. The amount obligated under this contract is increased by \$11,391,150 and is changed from \$1,155,037,530.45 to \$1,166,428,680.45. As a result, the first sentence of paragraph (a) of Clause I.79, "Obligation of Funds," is changed to read as follows:

Obligation of Funds. The amount presently obligated by the Government with respect to this contract is as follows:

Fund Type	B&R Code	Change	FY02	To Date
TE	EW3110022	0.00	0.00	50,000.00
YA	EB550000	0.00	0.00	491,600.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KA043012	0.00	0.00	5,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	0.00	4,900,000.00	21,169,575.00
WA	KB0102011	0.00	34,981,000.00	155,315,411.00
WA	KB0102011 (AIP A001)	0.00	1,300,000.00	5,388,000.00
WA	KB0102011 (GPP)	0.00	560,000.00	3,073,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP A001)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	4,950,000.00	24,254,398.00
WA _	KB0102012 (01CG)	0.00	0.00	0.00
WA	KB0102012 (EQUEQU01CG)	0.00	59,000.00	1,075,000.00
WA	KB0102012	0.00	15,725,000.00	70,814,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	938,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	450,000.00	2,566,002.00
WA	KB0301020 (EQU EQU)	0.00	0.00	340,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
<b>4V</b>	KT0101011	0.00	0.00	49,618.00 496,000.00
YA	KT0101012	0.00	0.00	380,000.00
YA	KT0101014	0.00	0.00	33,000.00
4V	KT0101012	0.00	0.00	
<b>4</b> V	KT0101018	0.00	0.00	48,888.88
ΤF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	0.00	175,600.00
WA	KP1402010 (EQU)	0.00	0.00	339,400.00

Received Time Feb. 4. 9:59AM

Contract No. DE-AC05-84ER40150 Modification No. A218 Page 3 of 4

Fund Type	B&R Code	Change	FY02	To Date
WA	KP1401030	(125,000.00)	215,000.00	270,000.00
WA	KP1401030 (EQU EQU)	0.00	0.00	465,000.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
YA	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00
YA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
ΥA	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00	87,300.00
ΥA	WB000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR-2001-S002)	0.00	0.00	24,000.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1Y	650102000 (OP AGR00-004)	0.00	0.00	11,250.00
1Y	650102000 (AGRS003)	0.00	0.00	2,500.00
YA	AT2540000	0.00	0.00	5,000.00
3Y	400412000 (AGRY1OR133700)	0.00	0.00	42,456.31
3T	400403109 (AGRSURA-2001-W004)	0.00	0.00	2,835,922.33
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	400403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
3T	400403309 (OP AGR-00-F-0439)	0.00	0.00	9,029,126.21
3T	400403309 (AGRN0001401-F-0171)	0.00	51,695.15	4,441,792.23
3T	400403309 (AGPN0001401-F-0171A)	0.00	0.00	392,979.61
3T	400403309 (AGRN00014-01-F-0171B)	0.00	0.00	24,271.84
YA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	0.00	150,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER401501111J)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER4015011111J CR40)	/ 366,250.00	616,250.00	5,828,326.00
TC	820201000 (OP TSKER 40150JLAAA CR40)	,	0.00	17,111.00
TC	820201000 (OP TSKER40150TJAAA CR40)\	11,209,900.00	18,626,900.00	47,615,721.00
TC	DP0404012 (OP)	\ 0.00	0.00	957,864.00
TC	39DP04000	0.00	0.00	644,134.00
	00000	//) 0.00	86.6	395,000.00
TC	39DP04040	0.00		(70,000.00)
TC	39DP04040 39DP08170 [15]	0.00	0.00	• .
2Y	600301010 (AGR-2001-W003)	0.00	0.00	1,000.00

Contract No. DE-AC05-84ER40150 Modification No. A218 Page 4 of 4

Fund Type	B&R Code	Change	FY02	To Date
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	0.00	494,000.00
2Y	600305000 (OP AGR2000W003)	0.00	0.00	20,000.00
2Y	600305000 (OP AGR2000W002)	0.00	0.00	30,000.00
2Y	600302000 (OP AGR2000W001)	0.00	0.00	90,000.00
SA	YN1901000	0.00	0.00	98,652.00
WA	EL1703000 (OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	0.00	200,000.00
WA	KB0401052	0.00	0.00	387,000.00
WA	KX0201000	0.00	50,000.00	95,000.00
WA	FS1000000	0.00	0.00	0.00
WA	FS1001100	(45,000.00)	307,000.00	705,000.00
WA	FS1001500	0.00	44,000.00	90,000.00
WA	FS1005100	0.00	232,000.00	307,000.00
WA	FS1005500	0.00	48,000.00	48,000.00
WA	FS1002300	(15,000.00)	(15,000.00)	18,000.00
WA	FS1002400	0.00	170,000.00	170,000.00
WA	FS1009300	0.00	101,000.00	101,000.00
TF	GD0703000	0.00	0.00	44,328.00
FG	GD0703000	0.00	0.00	145,500.00
FG	GD0703000 (EQU)	0.00	0.00	115,000.00
. 0	TOTAL	\$11,391,150.00	\$83,371,845.15	\$1,166,428,680.45

AMENDMENT OF SOLICITATI	ON/MODIFICATION	OF CONTRACT	1. CONTRACT ID CO	DE PAGE OF PAGES
2. AMENDMENT/MODIFICATION NO. A219	3. EFFECTIVE DATE	4. REQUISITION/PURCE	HASE REQ. NO.	5. PROJECT NO. (If applicable)
6. ISSUED BY COD	See Block 16C.	7, ADMINISTERED BY (	If other than Item 6)	CODE
U.S. Department of Energy			•	
TJNAF Site Office		· }		
12000 Jefferson Avenue				
Newport News, VA 23606	· · · · · · · · · · · · · · · · · · ·			
8. NAME AND ADDRESS OF CONTRACTOR (No., street	•		(X) 9A. AMENDMEN	T OF SOLICIATION NO.
Southeastern Universities Research Association	n, Inc.		,	
1200 New York Avenue, NW	,		9B. DATED (SEE	TEN 11)
Washington, D.C. 20005		•	BB. DATED (SEE	
	•	,	10A, MODIFICAT	TION OF CONTRACT/ORDER NO.
,	,		DE-AC05-84E	
·		•	X 10B. DATED ISE	
	1		^	
CODE	FACILITY CODE		August 3, 1984	4
11. THIS	ITEM ONLY APPLIES TO	AMENDMENTS OF		
or (c) By separate letter or telegram which includes a re PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PI your desire to change an offer already submitted, such amendment, and is received prior to the opening hour a	RIOR TO THE HOUR AND DATE : change may be made by telegrar	SPECIFIED MAY RESULT IN	REJECTION OF YOUR OF	FER, If by virtue of this amendment
12. ACCOUNTING AND APPROPIRATION DATA (If req	uired)		· · · · · · · · · · · · · · · · · · ·	
Increase \$19,417	, , , , , , , , , , , , , , , , , , ,			•
	M ONLY APPLIES TO M	ODIEICATION OF CO	NTRACTS/ORDERS	0
IT MODIFI	ES THE CONTRACT/OR	DER NO. AS DESCRI	BED IN ITEM 14.	J.
CHECK ONE A. THIS CHANGE ORDER IS ISSUED INO. IN ITEM 10A.	PURSUANT TO: (Specify authorit	y) THE CHANGES SET FOR	TH IN ITEM 14 ARE MADI	E IN THE CONTRACT ORDER
B. THE ABOVE NUMBERED CONTRA appropriation date, etc.) SET FOR				nges in paying office,
C. THIS SUPPLEMENTAL AGREEMEN				
X Increase in obligation of funds in a		Obligation of Funds."		
D. OTHER (Specify type of modification	on and authority)	·		
E. IMPORTANT: Contractor X is not,		nis document and ret	_	pies to the issuing office.
14. DESCRIPTION OF AMENDMENT/MODIFICATION (C		gs, including solicitation/cont WING PAGES	tract subject matter where	feasible.)
,				
	•	•		
				•
Except as provided herein, all terms and conditions of th	ne document referenced in Item 9	A or 10A, as heretofore cha	inged, remains unchanged	and in full force and effect.
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF		
		1		
		James D. Baxter, Jr., (	Contracting Officer	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. WINTED STATES OF		16C, DATE SIGNED
		Mames 50	Ste 1	2/58/27
(Signature of person authorized to sign)		(Signatur	eaf Contracting Officer)	

Contract No. DE-AC05-84ER40150 Modification No. A219 Page 2 of 4

1. The amount obligated under this contract is increased by \$19,417 and is changed from \$1,166,428,680.45 to \$1,166,448,097.45. As a result, the first sentence of paragraph (a) of Clause I.79, "Obligation of Funds," is changed to read as follows:

Obligation of Funds. The amount presently obligated by the Government with respect to this contract is as follows:

Fund Type	B&R Code	Change	FY02	To Date
TE	EW3110022	0.00	0.00	50,000.00
Ϋ́A	EB550000	0.00	0.00	491,600.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0,00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KA043012	0.00	0.00	5,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	0.00	4,900,000.00	21,169,575.00
WA	KB0102011	0.00	34,981,000.00	155,315,411.00
WA	KB0102011 (AIP A001)	0.00	1,300,000.00	5,388,000.00
WA	KB0102011 (GPP)	0.00	560,000.00	3,073,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP A001)	0.00	0.00	0.00
WA .	KB0102012 (EQU)	0.00	4,950,000.00	24,254,398.00
WA <sup>°</sup>	KB0102012 (01CG)	0.00	0.00	0.00
WA	KB0102012 (EQUEQU01CG)	0.00	59,000.00	1,075,000.00
WA	KB0102012	0.00	15,725,000.00	70,814,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	938,000.00
· WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	450,000.00	2,566,002.00
WA	KB0301020 (EQU'EQU)	0.00	0.00	340,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	0.00	175,600.00
WA	KP1402010 (EQU)	0.00	0.00	339,400.00

Received Time Mar. 4. 12:03PM

Contract No. DE-AC05-84ER40150 Modification No. A219 Page 3 of 4

00.000,1		00:0	(2224 ) 222 ) 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
(00.000,07)	00.0	00.0	600301010 (AGR-2001-W003)	人乙
396,000,000	00.0	00.0	39DP08170	DT.
	00.0 00.0	00.0	39DP04040	OT.
644,134.00		00.0	39DP04000	)T
00.498,736	00.0	00.0	DP0404012 (OP)	OT.
00.127,818,74	18,626,900.00	00.0	820201000 (OP TSKER40150TJAAA CR40)	OT.
00.111,71	00.0	00.0	820201000 (OP TSKER 40150JLAAA CR40)	OT
5,828,326.00	616,250.00	00.0	820201000 (OP TSKER401501111J CR40)	) TC
(00.667,24)	00.0	00.0	850501000 (Ob 12KEB4012000019 CB40)	ЭT
00.0	00.00	00.0	850501000 (Ob 12KEB4012011111)	)T
00.0	00.0	00.0	820201000 (OP TSKER40150TJAAA)	OT
00.EE7,SA	00.0	00.0	820201000 (OP TSKER4015000019)	ΟŢ
00.0	0.00	00.0	820201000 (QP)	)TC
00.638,663	00.0	00.0	820101000 (OP)	DI
150,000.00	00.0	00.0	K10101030	ΑW
20,909.00	00.0	00.0	K10500000	AW
450,346.00	00.0	00.0	K10102000	ΑY
00.714,91	00.714,et	00.714,91	400409900 (AGRSURAZ001W002)	3人
48.172,42	00'0	00.0	400403309 (AGRN00014-01-6171B)	Т£
19.979,561	00.0	00.0	400403309 (AGPN0001401-F-0171A)	TE
62.297,144,4	91.869,15	00.0	400403309 (AGRN0001401-F-0171)	Τε
12.921,620,6	00.0	00.0	400403309 (OF AGR-00-F-0439)	31
12,135.92	00.0	00.0	400403309 (OP AGR27199MPHS058)	T£
11,744,356.00	00.0	00.0	400403309 (OP AGR000096)	ΤE
2,835,922.33	.00*0	00.0	400403109 (AGRSURA-2001-W004)	Tε
12,456.31	00.0	00.0	400412000 (AGRY1OR133700)	3人
2,000.00	00.0	00.0	AT2540000	AY
2,500.00	00.0	00.0	650102000 (AGR00-004)	٨١
11,250.00	00.0	00.0	(,00 0000 ,0000 ,000	٧١
263,469.00	00.0	00.0	650102000 (AGR94-002)	٨L
24,000.00	00.0	00.0	650102000 (AGR-2001-5002)	٨١
00.001,08	00.0	00.0	39WB00000 (IHE500000A003)	AI,
00.008,62	00.0	00.0	39WB00000 (IHE500000A002)	٨١
00.380,886	00.0	00.0	39WB00000 (IHE50000A001)	٨ı
00.000,811	00.0	00.0	WB0000000	AY
00.006,78	00.0	00.0	KT0201013	ÅY
00.000,484	00.0	00.0	K00100000	ĄY
9,702,00	00.0	00.0	K10101026	AY
6,000.00	00.0	00.0	K10101019	AY
31,350.00	00.0	00.0	K10101018	AY
412,000,00	00.0	00.0	K10101017	AY
2,000.00	00.0	00.0	KC0701030	AY
00.000,399	00.0	00.0	KC0702000	AY
00.649,11	00.0	00.0	KC0504010	AY
612,000.00	00.0	00.0	K/0101014	FT
280,000.00	00.0	00.0	K/0101015	∃T
2,000.00	0.00	00.0	K20105511	ΑW
00.000,4	0.00	00.0	K20101000	AW
00.000,294	00.0	00.0	KP1401030 (EQU EQU)	AW
00.000,072	215,000.00	00.00	Kb1401030	ΑW
To Date	FY02	Change	B&R Code	Fund Type

## Contract No. DE-AC05-84ER40150 Modification No. A219 Page 4 of 4

34.760,844,331,1\$	\$83,391,262.15	00.714,618	JATOT	
115,000.00	00.0	00,0	GD0703000 (EQU)	EG
145,500.00	00.0	00.0	GD0703000	ÐН
44,328.00	00.0	00.0	GD0703000	ЯT
00.000,101	101,000.00	00.0	FS1009300	AW
00.000,071	170,000.00	00.0	E21002400	AW
18,000.00	(15,000.00)	00.0	FS1002300	AW
00.000,84	00.000,84	00.0	FS1005500	AW
307,000,00	232,000.00	00.0	FS1005100	AW
00.000,06	00 <sup>-</sup> 000'p <del>p</del>	00.0	FS1001500	ΑW
705,000.00	307,000.00	00.0	E21001100	ΑW
00.0	00.0	00.0	E21000000	AW
00'000'96	60,000,00	00.0	KX0501000	ΑW
387,000,00	00.0	00.0	KB0401025	AW
200,000,000	00.0	00.0	KB0401055	AW
25,000.00	. 00.0	00.0	EL1703000 (OPFWP #EL17039)	AW
98,652.00	00.0	00.0	VA1901000	AS
00.000,06	00.0	00.0	600302000 (OP AGR2000W001)	人乙
30,000,00	00.0	00.0	600305000 (OP AGR2000W002)	人乙
20,000,02	00.0	00.0	600305000 (OP AGR2000W003)	<b>Σ</b> 人
494,000,00	00.0	00.0	600305000 (OP AGR99W001)	λZ
200,000,000	00.0	00.0	600301010 (OP AGR98003105)	λζ
To Date		Change	B&R Code	Fund Type



12000 Jefferson Avenue Jefferson Lab Site Office U.S. Department of Energy

	Received Time Mar. 4. 12:03PM
***************************************	
,	
	· · · · · · · · · · · · · · · · · · ·
•	
	Note(s):
	Monique Petryext. 7141
	Andre Betheaext. 5095
	Rick Koryntaext. 7145 
	Barbara Morganext. 7139
	Wayne Skinnerext. 7143
	Sender:  Jerry Conleyext. 7142
	FAX Transmittal Sheet is Page 1 of
	Telephone No:
	Office/Location:
	To: Then Edus
	Date:
	<b>√</b>

Newport News, Virginia 23606

	MENT OF SOLICITATION	LAMODIEICATION	OF CONTRACT	1. CONTRACT ID CO	DE	PAGE OF	PAGES
9		MODIFICATION	OF CONTRACT			. 1	59
МĒ	NT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCH	ASE REQ. NO.	5. PROJECT	NO. (If applied	bie)
	M220	10/1/01			<u> </u>		
6. ISSUED BY	CODE	<u> </u>	7. ADMINISTERED BY (I	t other than item 6)	CODE		<del>,</del>
U.S. Departr	nent of Energy						
TJNAF Site	Office			•		•	
12000 Jeffer	son Avenue						
Newport Nev	vs, VA 23606				•		
8. NAME AND	ADDRESS OF CONTRACTOR (No., street, or	ounty, State and ZIP Code)	· · · · · · · · · · · · · · · · · · ·	(X) 9A. AMENDMEN	T OF SOLICIAT	ION NO.	
Southeasterr	n Universities Research Association, Ind	2.			1.		
1200 New Yo	ork Avenue, NW						
Washington,	D.C. 20005		-	9B. DATED (SEE	ITEM 11)		
	·			10A. MODIFICAT	ON OF COME	DA OTTO DEE	. NO
	•			DE-AC05-84E		MACI/ONDER	INO.
				10B DATED (SEE			
		•		X TOB. DATED (SEE	•		
CODE	F/	ACILITY CODE		August 3, 1984	Į.		-4
	11. THIS ITE	M ONLY APPLIES TO	AMENDMENTS OF	SOLICITATIONS	- triang triang	<u> </u>	
<u> </u>			17 16	,, <u> </u>			
	numbered solicitation is amended as set for		· ·			is not extende	∌d.
	knowledge receipt of this amendment prior to g items 8 and 15, and returning	•	in the solicitation of as amer b) By acknowledging receipt	• •	· .	offer submitt	ا المعاد
•	ate letter or telegram which includes a refere	• '					
PLACE DESIGN	ATED FOR THE RECEIPT OF OFFERS PRIOR hange an offer already submitted, such char	TO THE HOUR AND DATE S	PECIFIED MAY RESULT IN P	REJECTION OF YOUR OFF	FER. If by virtu	e of this ame	ndment
	d is received prior to the opening hour and d		or letter, provided each tele	graff of lotter makes fore	,0100 10 110 50	MOREGOOT ALK	u.,
12 ACCOUNT	NG AND APPROPIRATION DATA (If required	n		·		· · · · · ·	· .
•		•,					,
	· · · · · · · · · · · · · · · · · · ·	NLY APPLIES TO MO	DIFICATION OF CO	NTRACTS/ORDERS	5.	<u> </u>	
	IT MODIFIES	THE CONTRACT/ORD	DER NO. AS DESCRIE	BED IN ITEM 14.			
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURE	SUANT TO: (Specify authority	) THE CHANGES SET FORTI	H IN ITEM 14 ARE MADE	IN THE CONT	RACT ORDER	1
	NO. IN ITEM 10A.						
		· · · · · · · · · · · · · · · · · · ·	·		<del></del> -	·	
	B. THE ABOVE NUMBERED CONTRACT/Of appropriation date, etc.) SET FORTH IN				nges in paying	office,	
	C. THIS SUPPLEMENTAL AGREEMENT IS			103(11).	<del></del>		
х	In accordance with clause H.32 entitle			Assessment and Perfo	ormance Eva	luation" and	
<u>^</u>	D. OTHER (Specify type of modification ar		and of the community of the	· · · · · · · · · · · · · · · · · · ·	Timalio Lita	THE COLOR	
	Clause H.31 "Performance Measure R	eview"	•				
E IMPORT		is required to sign th	is document and retu	rn 2 con	ies to the i	esuina off	fice *
•						Soung On	
14. DESCRIPTION	ON OF AMENDMENT/MODIFICATION (Organ e of this modification is to revise Appen	ized by UCF section heading	s, including solicitation/contr	act subject matter where	feasible.) instrumed sets	hlich the	
oerformance E	e of this modification is to revise Appellivation Plan for FY 2002.	MIX D (FOITOITIANCE EVAIL	idilon by r entititiance-be		noty and este	abiisii u je	
2. All other ter	ms and conditions remain unchanged a	and in full force and effect.					
•							•
i,							
			ž.				
Except as provk	ded herein, all terms and conditions of the do	cument réferenced in Item 9/	A or 10A, as heretofore char	ged, remains unchanged	and in full forc	e and effect.	
15A. NAME AN	D TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF	CONTRACTING OFFICER	(Type or print	)	
Tnr	משאבת הבינות המונים עו נוותבו	i don#	, .				
261	ry P. Draayer, Pres	TAGUE	James W. Skinner, Cor	itracting Officer			
15B. CONTINAC	TORVOFFEROR	15C. DATE SIGNED	16B/UNITED STATES OF A			16C. DATE	SIGNED
(	HV.	2 05 02	Jule Wie	Kinnes		3.5	-02
a Asig	nature of person suthorized to sign)	3-05-02	(Signature	of Contracting Officer)			_ حديد

NSN 7540-01-152-8070
Previous edition unusable Received Time Mar. 19. 10:14AM

STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243

AMENI	DMENT OF SOLICITATION	MODIFICATION C	F CONTRACT	1. CONTRACT ID CO	DE	PAGE	OF PAGES
2. AMENDMEN	T/MODIFICAITON NO. A221	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCH	ASE REQ. NO.	5. PROJECT	NO. (If ap	plicble)
6. ISSUED BY	CODE		7. ADMINISTERED BY (II	other than Item 6)	CODE		
U.S. Departm	ent of Energy		7				
TJNAF Site C			•				
12000 Jeffers							
Newport New	· ·						
	ADDRESS OF CONTRACTOR (No., street, co	unty. State and ZIP Code)		(X) 9A. AMENDMEN	IT OF SOLICIA	TION NO.	
	Universities Research Association, Inc	••	,	1//			
	rk Avenue, NW						
Washington,			•	9B. DATED (SEE	ITEM 11)		
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2101 2000						
				10A. MODIFICA		TRACT/OF	DER NO.
•				DE-AC05-84E			
				X TOB. DATED (SE	EILEM 11)		
CODE	Tra	CILITY CODE		August 9, 400			
CODE		M ONLY APPLIES TO	AMENDMENTS OF	August 3, 198	<del>'</del>		
	11, 1110112	WONET PATEREO TO	AMENDINENTO OF	-		•	· · · · · · · · · · · · · · · · · · ·
ncrease \$11	13. THIS ITEM O IT MODIFIES  A. THIS CHANGE ORDER IS ISSUED PUR NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ appropriation date, etc.) SET FORTH II	ONLY APPLIES TO MO THE CONTRACT/ORD SUANT TO: (Specify authority  ORDER IS MODIFIED TO REFL N ITEM 14, PURSUANT TO TH	ER NO. AS DESCRI THE CHANGES SET FOR ECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43	BED IN ITEM 14. TH IN ITEM 14 ARE MAI TE CHANGES (such as ch	DE IN THE CO		ROER
	C. THIS SUPPLEMENTAL AGREEMENT IS						
X	Increase in obligation of funds in acco		bligation of Funds."				
·	D. OTHER (Specify type of modification a	nd authority)					
	ANT: Contractor X is not, Organion OF AMENDMENT/MODIFICATION (Organia)				opies to the	e issuin	g office.
	vided herein, all terms and conditions of the o	locument referenced in Item 9	A or 10A, as heretofore Ch	anged, remains unchang	ged and in full	force and o	offect.
	vided herein, all terms and conditions of the o	locument referenced in Item 9	A or 10A, as heretofore ch	nanged, remains unchang OF CONTRACTING OFFIC	jed and in full CER (Type or p	force and e	offect.
		locument referenced in Item 9	A or 10A, as heretofore ch	anged, remains unchang	jed and in full CER (Type or p	force and o	offect.
		locument referenced in Item 9	James W. Skinner, C	ontracting Officer	jed and in full CER (Type or p	orint)	
15A. NAME A		locument referenced in Item 9	16A. NAME AND TITLE C	ontracting Officer	jed and in full CER (Type or p	16C.	DATE SIGN

Contract No. DE-AC05-84ER40150 Modification No. A221 Page 2 of 4

1. The amount obligated under this contract is increased by \$11,090,000 and is changed from \$1,166,448,097.45 to \$1,177,538,097.45. As a result, the first sentence of paragraph (a) of Clause I.79, "Obligation of Funds," is changed to read as follows:

Obligation of Funds. The amount presently obligated by the Government with respect to this contract is as follows:

Fund Type	B&R Code	Change	FY02	To Date
TE	EW3110022	0.00	0.00	50,000.00
ΥA	EB550000	0.00	0.00	491,600.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	. 0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KA043012	0.00	0.00	5,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	870,000.00	5,770,000.00	22,039,575.00
WA	KB0102011	6,279,000.00	41,260,000.00	161,594,411.00
WA	KB0102011 (AIP A001)	0.00	1,300,000.00	5,388,000.00
WA	KB0102011 (GPP)	0.00	560,000.00	3,073,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP A001)	0.00	0.00	0.00
WA	KB0102012 (EQU)	881,000.00	5,831,000.00	25,135,398.00
WA	KB0102012 (01CG)	0.00	0.00	0.00
WA	KB0102012 (EQUEQU01CG)	0.00	59,000.00	1,075,000.00
WA	KB0102012	2,780,000.00	18,505,000.00	73,594,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	938,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	95,000.00	545,000.00	2,661,002.00
WA	KB0301020 (EQU EQU)	0.00	0.00	340,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
Ϋ́A	KT0101012	0.00	0.00	496,000.00
Ϋ́A	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
		0.00	0.00	40,000.00
4V	KT0101018			•
TF	KP0302000	. 0.00	0.00	13,000.00
WA	KP1402010	0.00	0.00	175,600.00
WA	KP1402010 (EQU)	0.00	0.00	339,400.00

Contract No. DE-AC05-84ER40150 Modification No. A221 Page 3 of 4

		<b>A</b> I	<b>5</b> 1/00	T. D.4
Fund Type	B&R Code	Change	FY02	To Date
WA	KP1401030	60,000.00	275,000.00	330,000.00
WA	KP1401030 (EQU EQU)	0.00	0.00	465,000.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
YA	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00
YA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00	87,300.00
YA	WB0000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR-2001-S002)	0.00	0.00	24,000.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1Y	650102000 (OP AGR00-004)	0.00	0.00	11,250.00
1Y -	650102000 (AGRS003)	0.00	0.00	2,500.00
YA	AT2540000	0.00	0.00	5,000.00
3Y	400412000 (AGRY1OR133700)	0.00	0.00	42,456.31
3T	400403109 (AGRSURA-2001-W004)	0.00	0.00	2,835,922.33
<b>3</b> T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
<b>3</b> T	400403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
<b>3</b> T	400403309 (OP AGR-00-F-0439)	0.00	0.00	9,029,126.21
3T	400403309 (AGRN0001401-F-0171)	0,00	51,695.15	4,441,792.23
3T	400403309 (AGPN0001401-F-0171A)	0.00	0.00	392,979.61
<b>3</b> T	400403309 (AGRN00014-01-F-0171B)	0.00	0.00	24,271.84
3Y	400409900 (AGRSURA2001W002)	0.00	19,417.00	19,417.00
YA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	0.00	150,000.00
TC	820101000 (OP)	0.00	00.0	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	0.00	(42,733.00)
TC	820201000 (OP TSKER4015011111J CR40)	0.00	616,250.00	5,828,326.00 17,111.00
TC	820201000 (OP TSKER 40150JLAAA CR40)	0.00	0.00	47,615,721.00
TC	820201000 (OP TSKER40150TJAAA CR40)	0.00	18,626,900.00	
TC	DP0404012 (OP)	0.00	0.00	957,864.00 C44.424.00
T0 _	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	0.00	0.00	395,000.00
TC.	39DP08170	0.00	0.00	(70,000.00)
2Y	600301010 (AGR-2001-W003)	0.00	0.00	1,000.00

Contract No. DE-AC05-84ER40150 Modification No. A221 Page 4 of 4

Fund Type	B&R Code	Change	FY02	To Date
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	0.00	494,000.00
2Y	600305000 (OP AGR2000W003)	0.00	0.00	20,000.00
2Y	600305000 (OP AGR2000W002)	0.00	0.00	30,000.00
2Y	600302000 (OP AGR2000W001)	0.00	0.00	90,000.00
SA	YN1901000	0.00	0.00	98,652.00
WA	EL1703000 (OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	0.00	200,000.00
WA	KB0401052	0.00	0.00	387,000.00
WA	KX0201000	0.00	50,000.00	95,000.00
WA	FS1000000	0.00	0.00	0.00
WA	FS1001100	0.00	307,000.00	705,000.00
WA	FS1001500	0.00	44,000.00	90,000.00
WA	FS1005100	0.00	232,000.00	307,000.00
. WA	FS1005500	0.00	48,000.00	48,000.00
WA	FS1002300	0.00	(15,000.00)	18,000.00
WA	FS1002400	0.00	170,000.00	170,000.00
WA	FS1009300	0.00	101,000.00	101,000.00
٦F	GD0703000	0.00	0.00	44,328.00
FG	GD0703000	0.00	0.00	145,500.00
FG	GD0703000 (EQU)	0.00	0.00	115,000.00
SA	WN0219080 (AGRSURA2002W001)	125,000.00	125,000.00	125,000.00
	TOTAL	\$11,090,000.00	\$94,481,262.15	\$1,177,538,097.45

The above numbered solicitation is amended as set forth Offers must acknowledge receipt of this amendment prior to (a)By completing items 8 and 15, and returning or (c) By separate letter or telegram which includes a referen PLACE DESIGNATED FOR THE RECEPT OF OFFERS PRIOR your desire to change an offer already submitted, such change amendment, and is received prior to the opening hour and do  12. ACCOUNTING AND APPROPIRATION DATA (If required Increase \$5,089,442.23  13. THIS ITEM O	See Block 16C.  See Block 16C.  CILITY CODE  M ONLY APPLIES TO  the in Item 14. The hour and an opte to the solicitation and an TO THE HOUR AND DATES ge may be made by telegranate specified.	7. ADMINISTERED BY (II  7. ADMINISTERED BY (II  7. ADMINISTERED BY (II  7. ADMINISTERED BY (II  7. ADMINISTERED BY (II  7. ADMINISTERED BY (II  7. ADMINISTERED BY (II  7. ADMINISTERED BY (II  7. ADMINISTERED BY (II  7. ADMINISTERED BY (II  7. ADMINISTERED BY (II  8. ADMINISTERED BY (II  8. ADMINISTERED BY (II  8. ADMINISTERED BY (II  8. ADMINISTERED BY (II  9. ADMINISTERED BY (II  10. ADMINISTERED BY (II  10. ADMINISTERED BY (II  10. ADMINISTERED BY (II  10. ADMINISTERED BY (II  10. ADMINISTERED BY (II  1	(X) 9A. AMENDA  9B. DATED (S)  10A. MODIFIE  DE-AC05-8  10B. DATED  August 3, 1  SOLICITATION:  Offers is ended, by one of the feat of this emendment of this emendment of the feat of this emendment of the feat of this emendment of the feat of this emendment of the feat of this emendment of the feat of this emendment of the feat of this emendment of the feat of this emendment of the feat of this emendment of the feat of this emendment of the feat of this emendment of the feat of this emendment of the feat	CODE  SEE ITEM 11)  CATION OF COMERA0150 (SEE ITEM 11)  1984 S  extended,	is not extends: the offer subsections of the contract of the c	DER NO.  ended.  printted; ED AT THE arrendment
U.S. Department of Energy  TJNAF Site Office  12000 Jefferson Avenue  Newport News, VA 23606  B. NAME AND ADDRESS OF CONTRACTOR (No., street, cool Southeastern Universities Research Association, Inc. 1200 New York Avenue, NW  Washington, D.C. 20005  CODE  The above numbered solicitation is amended as set forth offices must acknowledge receipt of this amendment prior to (a) By completing items 8 and 15, and returning or (c) By separate letter or telegram which includes a referent PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR your desire to change an offer already submitted, such change amendment, and is received prior to the opening hour and definition of the cool of the such change and the cool of the	cilitry code  CILITY CODE  M ONLY APPLIES TO  the in term 14. The hour and the hour and date specified copies of the amendment; noe to the solicitation and an TO THE HOUR AND DATES ge may be made by telegran ate specified.	D AMENDMENTS OF date specified for receipt of in the solicitation or as ame (b) By acknowledging receipt mendment numbers. FALUR SPECIFIED MAY RESULT IN m or letter, provided each tele	9B. DATED (S  10A. MODIFIE  DE-AC05-8  10B. DATED  August 3, 1  SOLICITATION:  Offers is ended, by one of the feat of this emendment of the feat of th	EEE ITEM 11) CATION OF COMERA0150 (SEE ITEM 11) 1984 S extended,	is not extends: the offer subsections of the contract of the c	ended. emitted; ED AT THE
FJNAF Site Office  12000 Jefferson Avenue  Newport News, VA 23606  3. NAME AND ADDRESS OF CONTRACTOR (No., street, cor.)  Southeastern Universities Research Association, Inc.  1200 New York Avenue, NW  Washington, D.C. 20005  CODE  The above numbered solicitation is amended as set forth  Offers must acknowledge receipt of this amendment prior to  (a) By separate letter or telegram which includes a referent  PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR over death to change an offer already submitted, such change amendment, and is received prior to the opening hour and designation of the common	CILITY CODE  M ONLY APPLIES TO the in term 14. The hour and the hour and date specified copies of the amendment; noe to the solicitation and an TO THE HOUR AND DATES ge may be made by telegran ate specified.	date specified for receipt of (in the solicitation or as ame (b) By acknowledging receipt mendment numbers. FAILUR SPECIFIED MAY RESULT IN or letter, provided each tek	9B. DATED (S  10A. MODIFIE  DE-AC05-8  X 10B. DATED  August 3, 1  SOLICITATION:  Offers is ended, by one of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of the feat of the feat of the feat of the feat of the feat of this amendment of the feat of	CATION OF COMMERCATION OF COMERCATION OF COMMERCATION OF COMMERCATION OF COMMERCATION OF COMME	is not extends: the offer subsections of the contract of the c	ended. emitted; ED AT THE
TODE  The above numbered solicitation is amended as set fortional by completing items 8 and 15, and returning or (C) By separate letter or telegram which includes a referent Accounting and is received prior to the opening hour and discrease \$5,089,442.23  13, THIS ITEM O	CILITY CODE  M ONLY APPLIES TO the in term 14. The hour and the hour and date specified copies of the amendment; noe to the solicitation and an TO THE HOUR AND DATES ge may be made by telegran ate specified.	date specified for receipt of (in the solicitation or as ame (b) By acknowledging receipt mendment numbers. FAILUR SPECIFIED MAY RESULT IN or letter, provided each tek	9B. DATED (S  10A. MODIFIE  DE-AC05-8  X 10B. DATED  August 3, 1  SOLICITATION:  Offers is ended, by one of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of the feat of the feat of the feat of the feat of the feat of this amendment of the feat of	CATION OF COMMERCATION OF COMERCATION OF COMMERCATION OF COMMERCATION OF COMMERCATION OF COMME	is not extends: the offer subsections of the contract of the c	ended. emitted; ED AT THE
2000 Jefferson Avenue lewport News, VA 23606  NAME AND ADDRESS OF CONTRACTOR (No., street, control outheastern Universities Research Association, Inc. 200 New York Avenue, NW Vashington, D.C. 20005  The above numbered solicitation is amended as set forth fifers must acknowledge receipt of this amendment prior to all By completing items 8 and 15, and returning  (c) By separate letter or telegram which includes a referent LACE DESIGNATED FOR THE RECEPT OF OFFERS PRIOR COURT of the Control of the Co	CILITY CODE  M ONLY APPLIES TO the in term 14. The hour and the hour and date specified copies of the amendment; noe to the solicitation and an TO THE HOUR AND DATES ge may be made by telegran ate specified.	date specified for receipt of (in the solicitation or as ame (b) By acknowledging receipt mendment numbers. FAILUR SPECIFIED MAY RESULT IN or letter, provided each tek	9B. DATED (S  10A. MODIFIE  DE-AC05-8  X 10B. DATED  August 3, 1  SOLICITATION:  Offers is ended, by one of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of the feat of the feat of the feat of the feat of the feat of this amendment of the feat of	CATION OF COMMERCATION OF COMERCATION OF COMMERCATION OF COMMERCATION OF COMMERCATION OF COMME	is not extends: the offer subsections of the contract of the c	ended. emitted; ED AT THE
ewport News, VA 23606  NAME AND ADDRESS OF CONTRACTOR (No., street, coroutheastern Universities Research Association, Inc. 200 New York Avenue, NW /ashington, D.C. 20005  ODE FA  11. THIS ITEM  The above numbered solicitation is amended as set forth fiers must acknowledge receipt of this amendment prior to (By completing items 8 and 15, and returning (C) By separate letter or telegram which includes a reference of desire to change an offer stready submitted, such change mendment, and is received prior to the opening hour and discrete to change and the street of the prior to the opening hour and discrete to \$5,089,442.23  13. THIS ITEM O	CILITY CODE  M ONLY APPLIES TO the in term 14. The hour and the hour and date specified copies of the amendment; noe to the solicitation and an TO THE HOUR AND DATES ge may be made by telegran ate specified.	date specified for receipt of (in the solicitation or as ame (b) By acknowledging receipt mendment numbers. FAILUR SPECIFIED MAY RESULT IN or letter, provided each tek	9B. DATED (S  10A. MODIFIE  DE-AC05-8  X 10B. DATED  August 3, 1  SOLICITATION:  Offers is ended, by one of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of the feat of the feat of the feat of the feat of the feat of this amendment of the feat of	CATION OF COMMERCATION OF COMERCATION OF COMMERCATION OF COMMERCATION OF COMMERCATION OF COMME	is not extends: the offer subsections of the contract of the c	ended. emitted; ED AT THE
NAME AND ADDRESS OF CONTRACTOR (No., street, countries and an approximately contributed by the street of the street of this amendment prior to the DESIGNATED FOR THE RECEPT OF OFFERS PRIOR Dur desire to change an offer siready submitted, such chair mendment, and is received prior to the opening hour and do increase \$5,089,442.23  13. THIS ITEM O	CILITY CODE  M ONLY APPLIES TO the in term 14. The hour and the hour and date specified copies of the amendment; noe to the solicitation and an TO THE HOUR AND DATES ge may be made by telegran ate specified.	date specified for receipt of (in the solicitation or as ame (b) By acknowledging receipt mendment numbers. FAILUR SPECIFIED MAY RESULT IN or letter, provided each tek	9B. DATED (S  10A. MODIFIE  DE-AC05-8  X 10B. DATED  August 3, 1  SOLICITATION:  Offers is ended, by one of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of the feat of the feat of the feat of the feat of the feat of this amendment of the feat of	CATION OF COMMERCATION OF COMERCATION OF COMMERCATION OF COMMERCATION OF COMMERCATION OF COMME	is not extends: the offer subsections of the contract of the c	ended. emitted; ED AT THE
outheastern Universities Research Association, Inc.  200 New York Avenue, NW  Vashington, D.C. 20005  The above numbered solicitation is amended as set forth  Iffers must acknowledge receipt of this amendment prior to  By completing items 8 and 15, and returning  (c) By separate letter or telegram which includes a referent  ACE DESIGNATED FOR THE RECEPT OF OFFERS PRIOR  our desire to change an offer stready submitted, such change mendment, and is received prior to the opening hour and de  ACCOUNTING AND APPROPIRATION DATA (If required Increase \$5,089,442.23	CILITY CODE  M ONLY APPLIES TO the in term 14. The hour and the hour and date specified copies of the amendment; noe to the solicitation and an TO THE HOUR AND DATES ge may be made by telegran ate specified.	date specified for receipt of (in the solicitation or as ame (b) By acknowledging receipt mendment numbers. FAILUR SPECIFIED MAY RESULT IN or letter, provided each tek	9B. DATED (S  10A. MODIFIE  DE-AC05-8  X 10B. DATED  August 3, 1  SOLICITATION:  Offers is ended, by one of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of this amendment of the feat of the feat of the feat of the feat of the feat of the feat of this amendment of the feat of	CATION OF COMMERCATION OF COMERCATION OF COMMERCATION OF COMMERCATION OF COMMERCATION OF COMME	is not extends: the offer subsections of the contract of the c	ended. emitted; ED AT THE
200 New York Avenue, NW  Vashington, D.C. 20005  The above numbered solicitation is amended as set forth  fifers must acknowledge receipt of this amendment prior to  By completing items 8 and 15, and returning  (c) By separate letter or telegram which includes a referent  LACE DESIGNATED FOR THE RECEPT OF OFFERS PRIOR.  LACE DESIGNATED FOR THE RECEPT OF OFFERS PRIOR,  LACE DESIGNATED FOR THE RECEPT OF OFFERS PRIOR,  LACE DESIGNATED FOR THE RECEPT OF OFFERS PRIOR,  LACE OLITING AND APPROPIRATION DATA (If required increase \$5,089,442.23)  13. THIS ITEM O	CILITY CODE  M ONLY APPLIES TO  the in Item 14. The hour and the hour and date specified copies of the amendment; noe to the solicitation and an TO THE HOUR AND DATES ge may be made by telegran ate specified.	date specified for receipt of (in the solicitation or as ame (b) By acknowledging receipt mendment numbers. FAILUR SPECIFIED MAY RESULT IN or letter, provided each tek	August 3, 1  SOLICITATION:  Offers is ended, by one of the febt of this amendment of RE OF FOUR ACKNOWLES.	CATION OF COMMERCANION OF C	is not extends: the offer sub ONE RECEIVE	ended. omitted; ED AT THE
The above numbered solicitation is amended as set forth fifers must acknowledge receipt of this amendment prior to By completing items 8 and 15, and returning (c) By separate letter or telegram which includes a reference of desire to change an offer stready submitted, such change mendment, and is received prior to the opening hour and definition of the complete of the second desire to change and the second desire to change and the second desire to change and the second desired of the opening hour and definition of the second desired des	th in Item 14. The hour and the hour and date specified copies of the amendment; ince to the solicitation and an TO THE HOUR AND DATE sign may be made by telegranate specified.	date specified for receipt of (in the solicitation or as ame (b) By acknowledging receipt mendment numbers. FAILUR SPECIFIED MAY RESULT IN or letter, provided each tek	August 3, 1  SOLICITATION:  Offers is ended, by one of the febt of this amendment of RE OF FOUR ACKNOWLES.	CATION OF COMMERCANION OF C	is not extends: the offer sub ONE RECEIVE	ended. omitted; ED AT THE
The above numbered solicitation is amended as set fortifiers must acknowledge receipt of this amendment prior to By completing items 8 and 15, and returning  (c) By separate letter or telegram which includes a referent ACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR our desire to change an offer already submitted, such changemendment, and is received prior to the opening hour and definition of the complete submitted and the	th in Item 14. The hour and the hour and date specified copies of the amendment; ince to the solicitation and an TO THE HOUR AND DATE sign may be made by telegranate specified.	date specified for receipt of (in the solicitation or as ame (b) By acknowledging receipt mendment numbers. FAILUR SPECIFIED MAY RESULT IN or letter, provided each tek	August 3, 1  SOLICITATION:  Offers is ended, by one of the febt of this amendment of RE OF FOUR ACKNOWLES.	CATION OF COMMERCANION OF C	is not extends: the offer sub ONE RECEIVE	ended. omitted; ED AT THE
The above numbered solicitation is amended as set forth fifers must acknowledge receipt of this amendment prior to the completing items 8 and 15, and returning  (c) By separate letter or telegram which includes a referent ACE DESIGNATED FOR THE RECEPT OF OFFERS PRIOR or desire to change an offer stready submitted, such change mendment, and is received prior to the opening hour and desired.  2. ACCOUNTING AND APPROPIRATION DATA (If required increase \$5,089,442.23	th in Item 14. The hour and the hour and date specified copies of the amendment; ince to the solicitation and an TO THE HOUR AND DATE sign may be made by telegranate specified.	date specified for receipt of (in the solicitation or as ame (b) By acknowledging receipt mendment numbers. FAILUR SPECIFIED MAY RESULT IN or letter, provided each tek	DE-AC05-8  X DE-AC05-8  108. DATED  August 3, 1  SOLICITATION:  Offers is ended, by one of the feat of this emendment of the feat of this emendment of the feat of the feat of this emendment of the feat of this emendment of the feat of this emendment of the feat of this emendment of the feat of this emendment of the feat of this emendment of the feat of this emendment of the feat of the f	MER40150 (SEE ITEM 11)  1984 S extended,  pillowing method in each copy of the pillowing method in the	is not extends: the offer sub ONE RECEIVE	ended. omitted; ED AT THE
The above numbered solicitation is amended as set forth fifers must acknowledge receipt of this amendment prior to allow completing items 8 and 15, and returning (c) By separate letter or telegram which includes a referent LACE DESIGNATED FOR THE RECEPT OF OFFERS PRIOR our desire to change an offer stready submitted, such change mendment, and is received prior to the opening hour and do increase \$5,089,442.23  13. THIS ITEM O	th in Item 14. The hour and the hour and date specified copies of the amendment; ince to the solicitation and an TO THE HOUR AND DATE sign may be made by telegranate specified.	date specified for receipt of (in the solicitation or as ame (b) By acknowledging receipt mendment numbers. FAILUR SPECIFIED MAY RESULT IN or letter, provided each tek	August 3, 1  SOLICITATION:  Offers is ended, by one of the fet of this amendment of the fet of the fet of this amendment of the fet of this amendment of the fet of this amendment of the fet of this amendment of the fet of this amendment of the fet of this amendment of the fet of this amendment of the fet of this amendment of the fet of this amendment of the fet of this amendment of the fet of this amendment of this amendment of the fet of this amendment of t	(SEE ITEM 11)  1984 S extended,  pollowing method in each copy of the polyment To the polyment	ds: the offer sub DBE RECEIVE	omitted; ED AT THE amendment
The above numbered solicitation is amended as set forth fifers must acknowledge receipt of this amendment prior to allow completing items 8 and 15, and returning (c) By separate letter or telegram which includes a referent LACE DESIGNATED FOR THE RECEPT OF OFFERS PRIOR our desire to change an offer stready submitted, such changemendment, and is received prior to the opening hour and do increase \$5,089,442.23  13. THIS ITEM O	th in Item 14. The hour and the hour and date specified copies of the amendment; ince to the solicitation and an TO THE HOUR AND DATE sign may be made by telegranate specified.	date specified for receipt of (in the solicitation or as ame (b) By acknowledging receipt mendment numbers. FAILUR SPECIFIED MAY RESULT IN or letter, provided each tek	August 3, 1  SOLICITATION:  Offers is ended, by one of the fet of this amendment of the fet of the fet of this amendment of the fet of this amendment of the fet of this amendment of the fet of this amendment of the fet of this amendment of the fet of this amendment of the fet of this amendment of the fet of this amendment of the fet of this amendment of the fet of this amendment of the fet of this amendment of this amendment of the fet of this amendment of t	(SEE ITEM 11)  1984 S extended,  pollowing method in each copy of the polyment To the polyment	ds: the offer sub DBE RECEIVE	omitted; ED AT THE amendment
The above numbered solicitation is amended as set forth fifers must acknowledge receipt of this amendment prior to allow completing items 8 and 15, and returning (c) By separate letter or telegram which includes a referent LACE DESIGNATED FOR THE RECEPT OF OFFERS PRIOR our desire to change an offer stready submitted, such change mendment, and is received prior to the opening hour and do increase \$5,089,442.23  13. THIS ITEM O	th in Item 14. The hour and the hour and date specified copies of the amendment; ince to the solicitation and an TO THE HOUR AND DATE sign may be made by telegranate specified.	date specified for receipt of (in the solicitation or as ame (b) By acknowledging receipt mendment numbers. FAILUR SPECIFIED MAY RESULT IN or letter, provided each tek	August 3, 1 SOLICITATION  Offers is ended, by one of the fot of this amendment of the fo	extended, collowing method on each copy of VLEDGMENT TO	ds: the offer sub DBE RECEIVE	omitted; ED AT THE amendment
The above numbered solicitation is amended as set forth fifers must acknowledge receipt of this amendment prior to allow completing items 8 and 15, and returning (c) By separate letter or telegram which includes a referent LACE DESIGNATED FOR THE RECEPT OF OFFERS PRIOR our desire to change an offer stready submitted, such change mendment, and is received prior to the opening hour and do increase \$5,089,442.23  13. THIS ITEM O	th in Item 14. The hour and the hour and date specified copies of the amendment; ince to the solicitation and an TO THE HOUR AND DATE sign may be made by telegranate specified.	date specified for receipt of (in the solicitation or as ame (b) By acknowledging receipt mendment numbers. FAILUR SPECIFIED MAY RESULT IN or letter, provided each tek	Offers is sended, by one of the fort of this emendment of RE OF YOUR ACKNOW	extended, collowing method on each copy of VLEDGMENT TO	ds: the offer sub DBE RECEIVE	omitted; ED AT THE amendment
The above numbered solicitation is amended as set forth fifers must acknowledge receipt of this amendment prior to allow completing items 8 and 15, and returning (c) By separate letter or telegram which includes a referent LACE DESIGNATED FOR THE RECEPT OF OFFERS PRIOR our desire to change an offer stready submitted, such change mendment, and is received prior to the opening hour and do increase \$5,089,442.23  13. THIS ITEM O	th in Item 14. The hour and the hour and date specified copies of the amendment; ince to the solicitation and an TO THE HOUR AND DATE sign may be made by telegranate specified.	date specified for receipt of (in the solicitation or as ame (b) By acknowledging receipt mendment numbers. FAILUR SPECIFIED MAY RESULT IN or letter, provided each tek	Offers is sended, by one of the fort of this emendment of RE OF YOUR ACKNOW	extended, collowing method on each copy of VLEDGMENT TO	ds: the offer sub DBE RECEIVE	omitted; ED AT THE amendment
ffers must acknowledge receipt of this amendment prior to )By completing items 8 and 15, and returning (c) By separate letter or telegram which includes a referent ACE DESIGNATED FOR THE RECEPT OF OFFERS PRIOR our desire to change an offer stready submitted, such change mendment, and is received prior to the opening hour and do not not seen the complete of the com	the hour and date specified copies of the amendment; (nee to the solicitation and an TO THE HOUR AND DATE sign may be made by telegranate specified.	in the solicitation or as ame (b) By acknowledging receipt mendment numbers. FAILUR SPECIFIED MAY RESULT IN I m or letter, provided each tek	ended, by one of the fo ot of this emendment o RE OF YOUR ACKNOV I REJECTION OF YOUR	ollowing method on each copy of VLEDGMENT TO	ds: the offer sub DBE RECEIVE	omitted; ED AT THE amendment
B. THE ABOVE NUMBERED CONTRACT/( appropriation date, etc.) SET FORTH IN C. THIS SUPPLEMENTAL AGREEMENT IS X Increase in obligation of funds in accor	ORDER IS MODIFIED TO REI N ITEM 14, PURSUANT TO ENTERED INTO PURSUANT rdance with Clause 1.79	DER NO. AS DESCRI THE CHANGES SET FOR FLECT THE ADMINISTRATIVE THE AUTHORITY OF FAR 43 TO AUTHORITY OF:	RIBED IN ITEM 14 ARE NOTED TO THE INTERNATION OF THE INTERNATION OF THE INTERNATION OF THE INTERNATION OF THE INTERNATION OF THE INTERNATION OF THE INTERNATION OF THE INTERNATION OF THE INTERNATION OF THE INTERNATION OF T	4. MADE IN THE CO		ROER
D. OTHER (Specify type of modification ar	nd authority)					
E. IMPORTANT: Contractor X is not, 4. DESCRIPTION OF AMENDMENT/MODIFICATION (Organ	nized by UCF section headin	his document and ret gs, including solicitation/con OWING PAGES		copies to t		office.
Except as provided herein, all terms and conditions of the di 15A. NAME AND TITLE OF SIGNER (Type or print) 15B. CONTRACTOR/OFFEROR	locument referenced in Item	James W. Skinner, C	Contracting Officer	enged and in fu FICER (Type or	. режіс)	offect.
IGG. POSSINGIOS I PIGOS	1				<i>Y</i>	-30.01

NSN 7540-01-152-8070
Previous edition unuset Received Time May. 9. 3:07PM

STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243

Contract No. DE-AC05-84ER40150 Modification No. A222 Page 2 of 4

1. The amount obligated under this contract is increased by \$5,089,442.23 and is changed from \$1,177,538,097.45 to \$1,182,627,539.68. As a result, the first sentence of paragraph (a) of Clause I.79, "Obligation of Funds," is changed to read as follows:

Obligation of Funds. The amount presently obligated by the Government with respect to this contract is as follows:

Fund Type	B&R Code	Change	FY02	To Date
ΤĖ	EW3110022	0.00	0.00	50,000.00
ΥA	EB550000	0.00	0.00	491,600.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KA043012	0.00	0.00	5,000.00
WA	KB0101000	0.00	0.00	148,882,000.00°
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	0.00	5,770,000.00	22,039,575.00
WA	KB0102011	0.00	41,260,000.00	161,594,411.00
.WA	KB0102011 (AIP A001)	0.00	1,300,000.00	5,388,000.00
WA	KB0102011 (GPP)	0.00	560,000.00	3,073,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP A001)	0.00	0.00	0.00
WA	KB0102012 (EQU)	80,000.00	5,911,000.00	25,215,398.00
WA	KB0102012 (01CG)	0.00	0.00	0.00
WA	KB0102012 (EQUEQU01CG)	0.00	59,000.00	1,075,000.00
WA	KB0102012	0.00	18,505,000.00	73,594,425.00
WĄ	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	938,000.00
WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	545,000.00	2,661,002.00
WA	KB0301020 (EQU EQU)	0.00	0.00	340,000.00
WA	KC0301030	0.00	0.00	200,000.00
ΥA	392100000	0.00	0.00	653,176.00
WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00*
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	51,050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
ΥA	35KC07000 (Recast KJ0102 EQU)	0.00	00,00	44,745.00
WA	35KS01000	0.00	0.00	6,861.00
4V .	KT0101011	0.00	0.00	49,618.00
YA	KT0101012	0.00	0.00	496,000.00
YA	KT0101014	0.00	0.00	380,000.00
<b>4</b> V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	40,000.00
TF	KP0302000	0.00	0.00	13,000.00
WA	KP1402010	0.00	0.00	175,600.00
WA	KP1402010 (EQU)	0.00	0.00	339,400.00

Received Time-May. 9. 3:07PM · -- ··

Contract No. DE-AC05-84ER40150 Modification No. A222 Page 3 of 4

Fund Type	B&R Code	Change	FY02	To Date
WA	KP1401030	300,000.00	575,000.00	630,000.00
WA	KP1401030 (EQU EQU)	0.00	0.00	465,000.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
YA	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00
YA	KT0101017	0.00	0.00	412,000.00
YA ·	KT0101018	0.00	0.00	31,350.00
YA	KT0101019	0.00	0.00	5,000.00
		0.00	0.00	· ·
YA	KT0101025			9,702.00
YA	KU0100000	0.00	0.00	484,000.00
YA	KT0201013	0.00	0.00	87,300.00
YA	WB0000000	0.00	0.00	116,000.00
1Y <sup>4</sup>	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR-2001-S002)	0.00	0.00	24,000.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1Y	650102000 (OP AGR00-004)	0.00	0.00	11,250.00
1Y	650102000 (AGRS003)	0.00	0.00	2,500.00
YA	AT2540000	0.00	0.00	5,000.00
3Y	400412000 (AGRY1OR133700)	0.00	0.00	42,456.31.
<b>3</b> T	400403109 (AGRSURA-2001-W004)	0.00	0.00	2,835,922.33
3T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	400403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
ЗТ	400403309 (OP AGR-00-F-0439)	0.00	0.00	9,029,126.21
<b>3</b> T	400403309 (AGRN0001401-F-0171)	0.00	51,695.15	4,441,792.23
3T	400403309 (AGPN0001401-F-0171A)	0.00	0.00	392,979.61
3T	400403309 (AGRN00014-01-F-0171B)	0.00	0.00	24,271.84
3T	400403309 (AGRN00014-01-F-0171C)	1,313,592.23	1,313,592.23	1,313,592.23
3Y	400409900 (AGRSURA2001W002)	0.00	19,417.00	19,417.00
YA	KJ0102000	0.00	0.00	420,346.00
WA	KJ0200000	0.00	0.00	50,909.00
		0.00	0.00	150,000.00
WA	KJ0101030	0.00	0.00	599,853.00
TC	820101000 (OP)	0.00	0.00	0.00
TC	820201000 (OP)		0.00	42,733.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150I111J)	0.00	0.00	(42,733.00)
тс	820201000 (OP TSKER4015000019 CR40)	0.00		5,937,076.00
TC	820201000 (OP TSKER401501111J CR40)	108,750.00	725,000.00	
TC	820201000 (OP TSKER 40150JLAAA CR40)	0.00	0.00	17,111.00
TC	820201000 (OP TSKER40150TJAAA CR40)	3,287,100.00	21,914,000.00	50,902,821.00
TC	DP0404012 (OP)	0.00	0.00	957,66 <b>4</b> .00
TC	39DP04000	0.00	0.00	644,134.00
TC	39DP04040	0.00	0.00	395,000.00
TC	39DP08170	0.00	0.00	(70,000.00)
2Y	600301010 (AGR-2001-W003)	0.00	0.00	1,000.00
<b>-</b> :	Received Time May. 9 3:07PM			

Contract No. DE-AC05-84ER40150 Modification No. A222 Page 4 of 4

Fund Type	B&R Code	Change	FY02	To Date
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	0.00	494,000.00
2Y	600305000 (OP AGR2000W003)	0.00	0.00	20,000.00
2Y.	600305000 (OP AGR2000W002)	0.00	0.00	30,000.00
2Y	600302000 (OP AGR2000W001)	0.00	0.00	90,000.00
SA	YN1901000	0.00	0.00	98,652.00
WA	EL1703000 (OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	0.00	200,000.00
WA	KB0401052	0.00	0.00	387,000.00
WA	KX0201000	0.00	50,000.00	95,000.00
WA	FS1000000	0.00	0.00	0.00
WA	FS1001100	0.00	307,000.00	705,000.00
WA	FS1001500	0.00	44,000.00	90,000.00*
WA	FS1005100	0.00	232,000.00	307,000.00
WA	FS1005500	0.00	48,000.00	48,000.00
WA	FS1002300	0.00	(15,000.00)	18,000.00
WA	FS1002400	0.00	170,000.00	170,000.00
WA	FS1009300	0.00	101,000.00	101,000.00
TF	GD0703000	0.00	0.00	44,328.00
FG	GD0703000	0.00	0.00	145,500.00
FG	GD0703000 (EQU)	0.00	0.00	115,000.00
SA	WN0219080 (AGRSURA2002W001)	0.00	125,000.00	125,000.00
	TOTAL	\$5,089,442.23	\$99,570,704.38	\$1,182,627,539.68

					MAY	2 1 206
AMENDMENT OF SOLICITATION	/MODIFICATION (	OF CONTRACT	1. C	ONTRACT ID CO	DDE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO.  M223	3. EFFECTIVE DATE See Block 16C.	4. REQUISITION/PURCH	ASE REC	2, NO.	5. PROJECT	NO. (If applicble)
6. ISSUED BY CODE		7. ADMINISTERED BY (I	lf other t	han Item 6)	CODE	
U.S. Department of Energy						
TJNAF Site Office						
12000 Jefferson Avenue						
Newport News, VA 23606						
8. NAME AND ADDRESS OF CONTRACTOR (No., street, co	unty, State and ZIP Code)		T(X) T	9A. AMENDMEN	T OF SOLICIA	TION NO.
Southeastern Universities Research Association, Inc	•					
1200 New York Avenue, NW						•
Washington, D.C. 20005			1	9B. DATED (SEE	ITEM 11)	
		•				RACT/ORDER NO.
		•		DE-AC05-84E 108. DATED (SE		
			X	IOD. DATED ISC	L ITENI 117	
CODE	CILITY CODE		┥ ┃	August 3, 198	84	
	M ONLY APPLIES TO	AMENDMENTS OF	SOLIC			
The above numbered solicitation is amended as set fort		•			tended,	is not extended.
Offers must acknowledge receipt of this amendment prior to (a)By completing items 8 and 15, and returning	the hour and date specified in copies of the amendment; (b)					
or (c) By separate letter or telegram which includes a referer PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR your desire to change an offer already submitted, such chan amendment, and is received prior to the opening hour and di	TO THE HOUR AND DATE SI ge may be made by telegram ate specified.	PECIFIED MAY RESULT IN I	REJECTI	ON OF YOUR O	FFER. If by virt	ue of this amendment
12. ACCOUNTING AND APPROPIRATION DATA (If required	)					
N/A	AULY ADDITION TO MA	DIFICATION OF CO	MITDA	CTC/ODDES		
IT MODIFIES	NLY APPLIES TO MO THE CONTRACT/ORD	DER NO. AS DESCRI	IBED II	N ITEM 14.		
CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.	SUANT TO: (Specify authority	) THE CHANGES SET FORT	1H IN 111	:M 14 ARE MAL	DE IN THE CON	TRACT ORDER
B. THE ABOVE NUMBERED CONTRACT/O	DRDER IS MODIFIED TO REFI	LECT THE ADMINISTRATIV	/E CHAN	GES (such as ch	anges in paying	g office,
appropriation date, etc.) SET FORTH IN  C. THIS SUPPLEMENTAL AGREEMENT IS			3.103(Б).		····	***************************************
C. THIS SUPPLEMENTAL AGREEMENT IS	ENTERED INTO PORSOANT	TO AUTHORITY OF:				4
D. OTHER (Specify type of modification ar	nd authority)					
X In accordance with Clause H.29 and C		4-13				
E. IMPORTANT: Contractor is not, X	is required to sign th		turn —	cc	pies to the	issuing office.
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organ	nized by UCF section heading	s, including solicitation/con-	tract sub	ject matter whe	re feasible.)	
	SEE FO	LLOWING PAGES				
	224/0	- · · · · · · · · · · · · · · · · · · ·				
						•
Except as provided herein, all terms and conditions of the di	notiment referenced in he-	IA or 104 as heretoforo ob	anged •	emains unchass	ad and in full to	orce and effect
15A. NAME AND TITLE OF SIGNER (Type or print)	ocument terefeticed to trem a	16A. NAME AND TITLE O	F CONT	RACTING OFFIC	ER (Type or pri	nt)
The second secon					•	
		James W. Skinner O	ontroot	na Officer		
15B. CONTRACTOR/OFFEROR	I15C, DATE SIGNED	James W. Skinner, Co				16C. DATE SIGNED
(I DI)	pool pools or	Vanua 111.	. X2.	me		C- 1,7- 0-
Migrature of person authorized to sign)		(Signatu	re of Co	ntracting Officer	)	- 5-15-02

Contract No. DE-AC05-84ER40150 Modification No. M223 Page 2 of 2

- 3. The purpose of this modification is to:
  - a. Incorporate the Actual Central Office Expenses for FY00 through FY01 under Clause H.29 entitled "SURA CENTRAL OFFICE EXPENSES." Paragraph 2 of Clause H.29 is revised as follows:
    - "2. A schedule of the central office expenses is as follows:

<u>Fiscal Year</u>	Estimated Central Office Expenses	Actual Central Office <u>Expenses</u>
11/01/1999 - 9/30/2000	\$1,515,834	\$1,415,979
10/01/2000 - 9/30/2001	\$1,653,637	\$1,728,427
10/01/2001 - 9/30/2002	TBD	TBD
10/01/2002 - 9/30/2003	TBD	TBD
10/01/2003 - 9/30/2004	TBD	TBD"

- b. Incorporate the fixed fee payable to the Contractor for FY01 under Clause I.78 entitled "DEAR 870.5204-13 ALLOWABLE COSTS AND FIXED FEE (MANAGEMENT AND OPERATING CONTRACTS)(MAR 1988)(DEVIATION)." The first section of paragraph (b) of Clause I.78 is revised as follows:
  - "(b) Fixed-Fee. The fixed-fee payable to the Contractor for the performance of the work under this contract commencing November 1, 1999, is as follows:
    - (1) From November 1, 1999 through September 30, 2000 \$341,917
    - (2) From October 1, 2000 through September 30, 2001 \$373,000
    - (3) From October 1, 2001 through September 30, 2002 TBD
    - (4) From October 1, 2002 through September 30, 2003 TBD
    - (5) From October 1, 2003 through September 30, 2004 TBD"
- 4. All other terms and conditions remain unchanged and in full force and effect.

AMENI	MENT OF SOLICITATION	J/MODIFICATIO	N O	CONTRACT	1.0	ONTRACT ID CO	DE	PAGE	OF PAGE
,					<u> </u>			1	44
2. AMENDMENT	T/MODIFICAITON NO. A224	3. EFFECTIVE DATE See Block 160		4. REQUISITION/PURCHA	ASE RE	a. No.	5. PROJECT	NO. (If ap	plicble)
6. ISSUED BY	CODE			7. ADMINISTERED BY (IF	other	than (tem 6)	CODE	1	
U.S. Departm	ent of Energy	L						-	
TJNAF Site O	••								
			i						
12000 Jeffers						,			
Newport New	·		لـــــــــــــــــــــــــــــــــــــ		700	9A. AMENDMEN	T OF SOUICE	TION NO	
	ADDRESS OF CONTRACTOR (No., street, of	• •	10)		(X)	SA. AWIENDWIEN	II OF SOLICIA	~ / IOI IIO.	
	Universities Research Association, In	IC.							
	rk Avenue, NW			,		9B. DATED (SEE	ITEM 11)		<del></del>
Washington, I	D.C. 20005					Į			
						10A. MODIFICA	TION OF CON	ITRACT/OI	RDER NO.
						DE-AC05-84E	FR40150		
					X	10B. DATED (SE	E ITEM 11)		
						·			
CODE		ACILITY CODE			_نِـا	August 3, 198	34		
	11. THIS IT	EM ONLY APPLIES	TO A	MENDMENTS OF	SOL	CITATIONS			
٦	numbered solicitation is amended as set to	reh in Ham 14. The hour	and dae	e specified for receipt of t	Offere	is ax	tended,	is not ex	tended.
	unowledge receipt of this amendment prior	to the nour and date spec	citied in	the solicitation of as ame	naea,	y one or use tolic	wing memoral	a, ha affar si	hmittadı
a)By completin	g items 8 and 15, and returning	copies of the amendm	ent; (b) (	By acknowledging receipt	of thi	amendment on	each copy of t	DE DECEN	IDITIILLOG;
	ite letter or telegram which includes a refer ATED FOR THE RECEIPT OF OFFERS PRIO								
vour desize to c	hange an offer aiready submitted, such Chi	ande may be made by tek	egram o	r letter, provided each tele	gram	or letter makes re	ference to the	solicitatio	n and this
amendment, an	d is received prior to the opening hour and	date specified.							
12. ACCOUNT	NG AND APPROPIRATION DATA (If requir	ed)							
Ir	ncease \$100,000								
	13 THIS ITEM	ONLY APPLIES TO	OM C	DIFICATION OF CO	NTR	ACTS/ORDE	<b>7</b> S.		
	IT MODIFIES	THE CONTRACT	/ORDE	R NO. AS DESCRI	BED	IN ITEM 14.			
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PU	RSUANT TO: (Specify au	thority)	THE CHANGES SET FOR	TH IN I	TEM 14 ARE MA	DE IN THE CO	MIRACI	JHDEK
	NO. IN ITEM 10A.								
	B. THE ABOVE NUMBERED CONTRAC	T/ORDER IS MODIFIED TO	O REFLE	CT THE ADMINISTRATIVE	E CHA	NGES (such as c	hanges in pay	ing office,	
	appropriation date, etc.) SET FORTH				3, 1031				
_	C. THIS SUPPLEMENTAL AGREEMENT					•			
Х	Increase in obligation of funds in ac	cordance with Clause	1.79 °C	bligation of Funds.					
	D. OTHER (Specify type of modification	and authority)					,		
									4 - 1
E. IMPORT	ANT: Contractor 🗶 is not,	] is required to sig	gn this	document and ret	urn	c	opies to tl	ne issuir	ig office.
14 DECCOURT	ON OF AMENDMENT/MODIFICATION (Or	panized by UCF section b	eadings.	including solicitation/con	tract s	ubject matter wh	ere teasible.)		
14. DESCRIPT	ON OF AMENDMENTATION (OI	Juliace by 5 51 555 inchise							
	•	OF		LOWING BACES					
		3E	EFUL	LOWING PAGES					
•									
Event se ara	rided herein, all terms and conditions of the	document referenced in	Item 9A	or 10A, as heretofore ch	anged	, remains unchan	ged and in ful	force and	effect.
15A. NAME A	ND TITLE OF SIGNER (Type or print)			16A. NAME AND TITLE O	F CO	TRACTING OFFI	CER (Type or	print)	
	· · · · · · · · · · · · · · · · · · ·		į						
	•		Ì	James W. Skinner, C	ما۔۔	Alna Allicar			
		AED DATE OU	2NIED	James W. Skinner, C				1160	. DATE SIGN
15B. CONTRA	CTORVOFFEROR	15C, DATE SIG	PIAET	105,00 FE 31A 129 01	(艾)	Clare Os		.	-/. /
			- [	- Juwi IV	TE A	Contracting Office	er)	5	131107
. (9	Signature of person authorized to sign)	1		// (Signati	- U	Commonly Office			

STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53,243

Contract No. DE-AC05-84ER40150 Modification No. A242 Page 2 of 4

1. The amount obligated under this contract is increased by \$100,000 and is changed from \$1,182,627,539.68 to \$1,182,727,539.68. As a result, the first sentence of paragraph (a) of Clause I.79, "Obligation of Funds," is changed to read as follows:

Obligation of Funds. The amount presently obligated by the Government with respect to this contract is as follows:

Fund Type	B&R Code	Change	FY02	To Date
TE	EW3110022	0.00	0.00	50,000.00
YA	EB550000	0.00	0.00	491,600.00
WA	KA0301000	0.00	0.00	90,000.00
WA	KA0101000	0.00	0.00	450,400.00
WA	KA0401000	0.00	0.00	13,910.00
WA	KA0401010	0.00	0.00	50,000.00
WA	KA0403011	0.00	0.00	40,000.00
WA	KA043012	0.00	0.00	5,000.00
WA	KB0101000	0.00	0.00	148,882,000.00
WA	KB0101000 (EQU)*	0.00	0.00	9,652,959.00
WA	KB0102000	0.00	0.00	249,512,000.00
WA	KB0101021	0.00	5,770,000.00	22,039,575.00
WA	KB0102011	0.00	41,260,000.00	161,594,411.00
WA	KB0102011 (AIP A001)	0.00	1,300,000.00	5,388,000.00
WA	KB0102011 (GPP)	0.00	560,000.00	3,073,000.00
WA	KB0102011 (EQU)	0.00	0.00	0.00
WA	KB0102012 (AIP A001)	0.00	0.00	0.00
WA	KB0102012 (EQU)	0.00	5,911,000.00	25,215,398.00
WA	KB0102012 (01CG)	0.00	0.00	0.00
WA	KB0102012 (EQUEQU01CG)	0.00	59,000.00	1,075,000.00
WA	KB0102012	0.00	18,505,000.00	73,594,425.00
WA	KB0102000 (AIP)(A001)	0.00	0.00	1,600,000.00
WA	KB01020000 (GPP)(A001)	0.00	0.00	1,280,000.00
WA	KB0181020	0.00	0.00	938,000.00
· WA	KB0181015	0.00	0.00	5,772,000.00
WA	KB0300000	0.00	0.00	2,789,700.00
WA	KB0301020	0.00	545,000.00	2,661,002.00
WA	KB0301020 (EQU EQU)	0.00	0.00	340,000.00
WA	KC0301030	0.00	0.00	200,000.00
YA	392100000	0.00	0.00	653,176.00
. WA	39KB00000 (87R203)	0.00	0.00	312,939,618.00
WA	39KB00000 (GPE300)	0.00	0.00	645,000.00
WA	35KB01000 (EQU99ZZ)	0.00	0.00	<b>51,</b> 050,000.00
WA	39KB0000 (AIP101000)	0.00	0.00	375,000.00
YA	35KC07000 (Recast KJ0102 EQU)	0.00	0.00	44,745.00
WA	35KS01000	00.00	0.00	6,861.00
4V	KT0101011	0.00	0.00	49,618.00
ΥA	KT0101012	0.00	0.00	496,000.00
ΥA	KT0101014	0.00	0.00	380,000.00
4V	KT0101012	0.00	0.00	33,000.00
4V	KT0101018	0.00	0.00	<b>4</b> 0,000.00
		0.00	0.00	13,000.00
TF	KP0302000	0.00	0.00	175,600.00
WA	KP1402010	0.00	0.00	339,400.00
WA	KP1402010 (EQU)	0.00	0.00	000,700.00

Contract No. DE-AC05-84ER40150 Modification No. A224 Page 3 of 4

Fund Type	B&R Code	Change	FY02	To Date
WA	KP1401030	0.00	575,000.00	630,000.00
WA	KP1401030 (EQU EQU)	0.00	0.00	465,000.00
WA	KS0101000	0.00	0.00	4,000.00
WA	KS0102211	0.00	0.00	5,000.00
TF	KV0101012	0.00	0.00	280,000.00
TF	KV0101014	0.00	0.00	612,000.00
YA	KC0204010	0.00	0.00	11,943.00
YA	KC0702000	0.00	0.00	665,000.00
YA	KC0701030	0.00	0.00	5,000.00
YA	KT0101017	0.00	0.00	412,000.00
YA	KT0101018	0.00	0.00	31,350.00
<b>YA</b> ,	KT0101019	0.00	0.00	5,000.00
YA	KT0101025	0.00	0.00	9,702.00
'YA	KU0100000	0.00	0.00	484,000.00
ΥA	KT0201013	0.00	0.00	87,300.00
YA	WB000000	0.00	0.00	116,000.00
1Y	39WB00000 (IHE50000A001)	0.00	0.00	988,085.00
1Y	39WB00000 (IHE500000A002)	0.00	0.00	29,800.00
1Y	39WB00000 (IHE500000A003)	0.00	0.00	80,100.00
1Y	650102000 (AGR-2001-S002)	0.00	0.00	24,000.00
1Y	650102000 (AGR94-002)	0.00	0.00	253,469.00
1Y	650102000 (OP AGR00-004)	0.00	0.00	11,250.00
1Y	650102000 (AGRS003)	0.00	0.00	2,500.00
YA	AT2540000	0.00	0.00	5,000.00
3Y	400412000 (AGRY1OR133700)	0.00	0.00	42,456.31
<b>3</b> T	400403109 (AGRSURA-2001-W004)	0.00	0.00	2,835,922.33
<b>3</b> T	400403309 (OP AGR000096)	0.00	0.00	11,744,355.00
3T	400403309 (OP AGR27199MPHS058)	0.00	0.00	12,135.92
3T	400403309 (OP AGR-00-F-0439)	0.00	0.00	9,029,126.21
<b>3</b> T	400403309 (AGRN0001401-F-0171)	0.00	51,695.15	4,441,792.23
3T	400403309 (AGPN0001401-F-0171A)	0.00	0.00	392,979.61
3T	400403309 (AGRN00014-01-F-0171B)	0.00	0.00	24,271.84
3T	400403309 (AGRN00014-01-F-0171C)	0.00	1,313,592.23	1,313,592.23
3Y	400409900 (AGRSURA2001W002)	0.00	19,417.00	19,417.00
WA	KJ0102000	100,000.00	100,000.00	520,346.00
WA	KJ0200000	0.00	0.00	50,909.00
WA	KJ0101030	0.00	0.00	150,000.00
TC	820101000 (OP)	0.00	0.00	599,853.00
TC	820201000 (OP)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019)	0.00	0.00	42,733.00
TC	820201000 (OP TSKER40150TJAAA)	0.00	0.00	0.00
TC	820201000 (OP TSKER40150l111J)	0.00	0.00	0.00
TC	820201000 (OP TSKER4015000019 CR40)	0.00	0,00	(42,733.00)
TC	820201000 (OP TSKER401501111J CR40)	0.00	725,000.00	5,937,076.00
TC	820201000 (OP TSKER 40150JLAAA CR40)	0.00	0.00	17,111.00
TC	820201000 (OP TSKER40150TJAAA CR40)	0.00	21,914,000.00	50,902,821.00
		0.00	0.00	957,864,00
TC	DP0404012 (OP)		0.00	644,134.00
TC	39DP04000	0.00	0.00	395,000.00
TC	39DP04040	0.00	0.00	(70,000.00)
TC	39DP08170	0.00	0.00	1,000.00
2Y	600301010 (AGR-2001-W003)	0.00	0.00	1,000.00
	Received Time Jun. 4. 3:01PM			

Contract No. DE-AC05-84ER40150 Modification No. A224 Page 4 of 4

Fund Type	B&R Code	Change	FY02	To Date
2Y	600301010 (OP AGR98003105)	0.00	0.00	200,000.00
2Y	600305000 (OP AGR99W001)	0.00	0.00	•
2Y	600305000 (OP AGR39W001)		0.00	494,000.00
21 2Y	•	0.00		20,000.00
2Y	600305000 (OP AGR2000W002)	0.00	0.00	30,000.00
	600302000 (OP AGR2000W001)	0.00	0.00	90,000.00
SA	YN1901000	0.00	0.00	98,652.00
WA	EL1703000 (OPFWP #EL17039)	0.00	0.00	25,000.00
WA	KB0401022	0.00	0.00	200,000.00
WA	KB0401052	0.00	0.00	387,000.00
WA	KX0201000	0.00	50,000.00	95,000.00
WA	FS1000000	0.00	0.00	0.00
WA	FS1001100	0.00	307,000.00	705,000.00
WA	FS1001500	0.00	44,000.00	90,000.00
WA	FS1005100	0.00	232,000.00	307,000.00
WA	FS1005500	0.00	48,000.00	48,000.00
WA	FS1002300	0.00	(15,000.00)	18,000.00
WA	FS1002400	0.00	170,000.00	170,000.00
WA	FS1009300	0.00	101,000.00	101,000.00
TF	GD0703000	0.00	0.00	44,328.00
FG	GD0703000	0.00	0.00	145,500.00
FG	GD0703000 (EQU)	0.00	0.00	115,000.00
SA	WN0219080 (AGRSURA2002W001)	0.00	125,000.00	125,000.00
UA.	TOTAL	\$100,000.00	\$99,670,704.38	\$1,182,727,539.68

AMENDMENT OF SOLICITATI	CHANGE DISTRICT TOTAL	or openingol		
				1 2
. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHAS	E REQ. NO.	5. PROJECT NO. (if applicable)
M225 . ISSUED BY COL	See Block 16C.	7. ADMINISTERED BY (If o	ther than Item 6)	CODE
•			<b></b>	
S. Department of Energy		· ·		
INAF Site Office				•
2000 Jefferson Avenue				
ewport News, VA 23606				
NAME AND ADDRESS OF CONTRACTOR (No., stre		. [1	X) 9A. AMENDMEN	T OF SOLICIATION NO.
utheastern Universities Research Association	ı, inc.		•	
00 New York Avenue, NW			9B. DATED (SEE	ITEM 11)
ashington, D.C. 20005			OB. DATED (OLL	
		-	10A, MODIFICAT	ION OF CONTRACT/ORDER NO.
		Ì	DE-AC05-84E	R40150
		.	X 108. DATED (SE	ITEM 11)
DE	FACILITY CODE		August 3, 198	4
11. THIS	ITEM ONLY APPLIES TO	AMENDMENTS OF S	OLICITATIONS	
c) by separate letter of telegram which includes a r CCE DESIGNATED FOR THE RECEIPT OF OFFERS P Ir desire to change an offer already submitted, such endment, and is received prior to the opening hour	ı change may be made by telegram	or letter, provided each teleg	ram or letter makes ref	erence to the solicitation and this
. ACCOUNTING AND APPROPIRATION DATA (If re	quired)		1	
N/A				
13. THIS ITE	M ONLY APPLIES TO MO	DIFICATION OF CON	TRACTS/ORDER	S.
		DER NO. AS DESCRIB	ED IN ITEM 14.	
	IES THE CONTRACT/ORE PURSUANT TO: Specify authority	DER NO. AS DESCRIB	ED IN ITEM 14.	
A. THIS CHANGE ORDER IS ISSUED NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR	PURSUANT TO:  Specify authority 	DER NO. AS DESCRIB  I) THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE  HE AUTHORITY OF FAR 43.1	ED IN ITEM 14. IN ITEM 14 ARE MAD	E IN THE CONTRACT ORDER
A. THIS CHANGE ORDER IS ISSUED NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTR appropriation data, etc.) SET FOI	PURSUANT TO: ISpecify authority  ACT/ORDER IS MODIFIED TO REFI  RTH IN ITEM 14, PURSUANT TO T  NT IS ENTERED INTO PURSUANT	DER NO. AS DESCRIB  I) THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE  HE AUTHORITY OF FAR 43.1	ED IN ITEM 14. IN ITEM 14 ARE MAD	E IN THE CONTRACT ORDER
A. THIS CHANGE ORDER IS ISSUED NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTR appropriation data, etc.) SET FOR C. THIS SUPPLEMENTAL AGREEME  D. OTHER (Specify type of modifications)	PURSUANT TO: ISpecify authority  LACT/ORDER IS MODIFIED TO REFI  RTH IN ITEM 14, PURSUANT TO T  INT IS ENTERED INTO PURSUANT  RION and authority)	DER NO. AS DESCRIB  I) THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE  HE AUTHORITY OF FAR 43.1  TO AUTHORITY OF:	ED IN ITEM 14. IN ITEM 14 ARE MAD	E IN THE CONTRACT ORDER
A. THIS CHANGE ORDER IS ISSUED NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTR appropriation data, etc.) SET FOI	PURSUANT TO: ISpecify authority  ACT/ORDER IS MODIFIED TO REFI  RTH IN ITEM 14, PURSUANT TO T  NT IS ENTERED INTO PURSUANT  Rion and authority)  and Clause I.18 DEAR 970.520	DER NO. AS DESCRIB  I) THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43.1 TO AUTHORITY OF:	ED IN ITEM 14. IN ITEM 14 ARE MAD CHANGES (such as ch	E IN THE CONTRACT ORDER anges in paying office,
B. THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR  C. THIS SUPPLEMENTAL AGREEME  D. OTHER (Specify type of modification of the contraction of the contrac	PURSUANT TO: ISpecify authority  LACT/ORDER IS MODIFIED TO REFI  RTH IN ITEM 14, PURSUANT TO T  INT IS ENTERED INTO PURSUANT  Rion and authority)  and Clause I.18 DEAR 970.520	DER NO. AS DESCRIB  I) THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43.1 TO AUTHORITY OF:	ED IN ITEM 14. IN ITEM 14 ARE MAD CHANGES (such as ch	E IN THE CONTRACT ORDER
B. THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR C. THIS SUPPLEMENTAL AGREEME  D. OTHER (Specify type of modificat X In accordance with Clause H.29 a	PURSUANT TO: ISpecify authority  ACT/ORDER IS MODIFIED TO REFI  RTH IN ITEM 14, PURSUANT TO T  INT IS ENTERED INTO PURSUANT  Blon and authority)  and Clause I.18 DEAR 970.520  X is required to sign th	DER NO. AS DESCRIB  I) THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43.1 TO AUTHORITY OF:  04-13 his document and returns	ED IN ITEM 14. IN ITEM 14 ARE MAD CHANGES (such as ch 03(b).	E IN THE CONTRACT ORDER anges in paying office, pies to the issuing office.
B. THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR C. THIS SUPPLEMENTAL AGREEME  D. OTHER (Specify type of modificat X In accordance with Clause H.29 a	PURSUANT TO: ISpecify authority  ACT/ORDER IS MODIFIED TO REFI  RTH IN ITEM 14, PURSUANT TO T  INT IS ENTERED INTO PURSUANT  Blon and authority)  and Clause I.18 DEAR 970.520  X is required to sign th	DER NO. AS DESCRIB  I) THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43.1 TO AUTHORITY OF:  04-13 his document and returns	ED IN ITEM 14. IN ITEM 14 ARE MAD CHANGES (such as ch 03(b).	E IN THE CONTRACT ORDER anges in paying office, pies to the issuing office.
B. THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR C. THIS SUPPLEMENTAL AGREEME  D. OTHER (Specify type of modificat X In accordance with Clause H.29 a	PURSUANT TO: ISpecify authority  ACT/ORDER IS MODIFIED TO REFI RTH IN ITEM 14, PURSUANT TO T  NT IS ENTERED INTO PURSUANT  tion and authority)  and Clause I.18 DEAR 970.520  Is required to sign th  (Organized by UCF section heading	DER NO. AS DESCRIB  I) THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43.1 TO AUTHORITY OF:  04-13 his document and returns	ED IN ITEM 14. IN ITEM 14 ARE MAD CHANGES (such as ch 03(b).	E IN THE CONTRACT ORDER anges in paying office, pies to the issuing office.
B. THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR C. THIS SUPPLEMENTAL AGREEME  D. OTHER (Specify type of modificat X In accordance with Clause H.29 a	PURSUANT TO: ISpecify authority  ACT/ORDER IS MODIFIED TO REFI RTH IN ITEM 14, PURSUANT TO T  NT IS ENTERED INTO PURSUANT  tion and authority)  and Clause I.18 DEAR 970.520  Is required to sign th  (Organized by UCF section heading	DER NO. AS DESCRIB  I) THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43.1 TO AUTHORITY OF:  04-13 his document and returns, including solicitation/contra	ED IN ITEM 14. IN ITEM 14 ARE MAD CHANGES (such as ch 03(b).	E IN THE CONTRACT ORDER anges in paying office, pies to the issuing office.
B. THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR C. THIS SUPPLEMENTAL AGREEME  D. OTHER (Specify type of modificat X In accordance with Clause H.29 a	PURSUANT TO: ISpecify authority  ACT/ORDER IS MODIFIED TO REFI RTH IN ITEM 14, PURSUANT TO T  NT IS ENTERED INTO PURSUANT  tion and authority)  and Clause I.18 DEAR 970.520  Is required to sign th  (Organized by UCF section heading	DER NO. AS DESCRIB  I) THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43.1 TO AUTHORITY OF:  04-13 his document and returns, including solicitation/contra	ED IN ITEM 14. IN ITEM 14 ARE MAD CHANGES (such as ch 03(b).	E IN THE CONTRACT ORDER anges in paying office, pies to the issuing office.
B. THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR C. THIS SUPPLEMENTAL AGREEME  D. OTHER (Specify type of modificat X In accordance with Clause H.29 a	PURSUANT TO: ISpecify authority  ACT/ORDER IS MODIFIED TO REFI RTH IN ITEM 14, PURSUANT TO T  NT IS ENTERED INTO PURSUANT  tion and authority)  and Clause I.18 DEAR 970.520  Is required to sign th  (Organized by UCF section heading	DER NO. AS DESCRIB  I) THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43.1 TO AUTHORITY OF:  04-13 his document and returns, including solicitation/contra	ED IN ITEM 14. IN ITEM 14 ARE MAD CHANGES (such as ch 03(b).	E IN THE CONTRACT ORDER anges in paying office, pies to the issuing office.
B. THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR C. THIS SUPPLEMENTAL AGREEME  D. OTHER (Specify type of modificat X In accordance with Clause H.29 a	PURSUANT TO: ISpecify authority  ACT/ORDER IS MODIFIED TO REFI RTH IN ITEM 14, PURSUANT TO T  NT IS ENTERED INTO PURSUANT  tion and authority)  and Clause I.18 DEAR 970.520  Is required to sign th  (Organized by UCF section heading	DER NO. AS DESCRIB  I) THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43.1 TO AUTHORITY OF:  04-13 his document and returns, including solicitation/contra	ED IN ITEM 14. IN ITEM 14 ARE MAD CHANGES (such as ch 03(b).	E IN THE CONTRACT ORDER anges in paying office, pies to the issuing office.
B. THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR C. THIS SUPPLEMENTAL AGREEME  D. OTHER (Specify type of modificat X In accordance with Clause H.29 a	PURSUANT TO: ISpecify authority  ACT/ORDER IS MODIFIED TO REFI RTH IN ITEM 14, PURSUANT TO T  NT IS ENTERED INTO PURSUANT  tion and authority)  and Clause I.18 DEAR 970.520  Is required to sign th  (Organized by UCF section heading	DER NO. AS DESCRIB  I) THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43.1 TO AUTHORITY OF:  04-13 his document and returns, including solicitation/contra	ED IN ITEM 14. IN ITEM 14 ARE MAD CHANGES (such as ch 03(b).	E IN THE CONTRACT ORDER anges in paying office, pies to the issuing office.
B. THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR C. THIS SUPPLEMENTAL AGREEME  D. OTHER (Specify type of modificat X In accordance with Clause H.29 a IMPORTANT: Contractor is not, DESCRIPTION OF AMENDMENT/MODIFICATION	PURSUANT TO: ISpecify authority  ACT/ORDER IS MODIFIED TO REFI  RTH IN ITEM 14, PURSUANT TO T  NT IS ENTERED INTO PURSUANT  Ition and authority)  and Clause I.18 DEAR 970.520  X is required to sign th  (Organized by UCF section heading	DER NO. AS DESCRIB  I) THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43.1 TO AUTHORITY OF:  04-13 his document and returns, including solicitation/contra	ED IN ITEM 14. IN ITEM 14 ARE MAD CHANGES (such as ch 03(b).  n	E IN THE CONTRACT ORDER  anges in paying office,  pies to the issuing office.
B. THE ABOVE NUMBERED CONTRAPPROPRIATION  B. THE ABOVE NUMBERED CONTRAPPROPRIATION date, etc.) SET FOR C. THIS SUPPLEMENTAL AGREEME  D. OTHER (Specify type of modification accordance with Clause H.29 at IMPORTANT: Contractor is not, DESCRIPTION OF AMENDMENT/MODIFICATION accept as provided herein, all terms and conditions of	PURSUANT TO: ISpecify authority  ACT/ORDER IS MODIFIED TO REFI  RTH IN ITEM 14, PURSUANT TO T  NT IS ENTERED INTO PURSUANT  Ition and authority)  and Clause I.18 DEAR 970.520  X is required to sign th  (Organized by UCF section heading	DER NO. AS DESCRIB  I) THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43.1  TO AUTHORITY OF:  04-13 his document and return is, including solicitation/contrations  OLLOWING PAGES	ED IN ITEM 14.  IN ITEM 14 ARE MAD  CHANGES (such as ch 03(b).	E IN THE CONTRACT ORDER  anges in paying office,  pies to the issuing office.  e feasible.)
B. THE ABOVE NUMBERED CONTRAPPROPRIATION  B. THE ABOVE NUMBERED CONTRAPPROPRIATION date, etc.) SET FOR C. THIS SUPPLEMENTAL AGREEME  D. OTHER (Specify type of modificat In accordance with Clause H.29 at IMPORTANT: Contractor is not, b. DESCRIPTION OF AMENDMENT/MODIFICATION CORPT as provided herein, all terms and conditions of	PURSUANT TO: ISpecify authority  ACT/ORDER IS MODIFIED TO REFI  RTH IN ITEM 14, PURSUANT TO T  NT IS ENTERED INTO PURSUANT  Ition and authority)  and Clause I.18 DEAR 970.520  X is required to sign th  (Organized by UCF section heading	DER NO. AS DESCRIB  I) THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43.1 TO AUTHORITY OF:  04-13 his document and returns, including solicitation/contra	ED IN ITEM 14.  IN ITEM 14 ARE MAD  CHANGES (such as ch 03(b).	E IN THE CONTRACT ORDER  anges In paying office,  pies to the issuing office.  e feasible.)
B. THE ABOVE NUMBERED CONTRAPPROPRIATION  B. THE ABOVE NUMBERED CONTRAPPROPRIATION date, etc.) SET FOR C. THIS SUPPLEMENTAL AGREEME  D. OTHER (Specify type of modification accordance with Clause H.29 at IMPORTANT: Contractor is not, DESCRIPTION OF AMENDMENT/MODIFICATION accept as provided herein, all terms and conditions of	PURSUANT TO: ISpecify authority  ACT/ORDER IS MODIFIED TO REFI  RTH IN ITEM 14, PURSUANT TO T  NT IS ENTERED INTO PURSUANT  Ition and authority)  and Clause I.18 DEAR 970.520  X is required to sign th  (Organized by UCF section heading	DER NO. AS DESCRIB  I) THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43.1 TO AUTHORITY OF:  04-13 his document and return  18, including solicitation/contration  OLLOWING PAGES  3A or 10A, as heretofore char  16A. NAME AND TITLE OF	ED IN ITEM 14.  IN ITEM 14 ARE MAD  CHANGES (such as ch 03(b).  The subject matter when  ged, remains unchange  CONTRACTING OFFICE	E IN THE CONTRACT ORDER  anges In paying office,  pies to the issuing office.  e feasible.)
B. THE ABOVE NUMBERED CONTRAPPROPRIATION  B. THE ABOVE NUMBERED CONTRAPPROPRIATION date, etc.) SET FOR C. THIS SUPPLEMENTAL AGREEME  D. OTHER (Specify type of modification in accordance with Clause H.29 at IMPORTANT: Contractor is not, contractor is not, coept as provided herein, all terms and conditions of SA. NAME AND TITLE OF SIGNER (Type or print)	PURSUANT TO: ISpecify authority  ACT/ORDER IS MODIFIED TO REFI  RTH IN ITEM 14, PURSUANT TO T  NT IS ENTERED INTO PURSUANT  Ition and authority)  and Clause I.18 DEAR 970.520  X is required to sign th  (Organized by UCF section heading  SEE FO  the document referenced in Item 9	DER NO. AS DESCRIB  I) THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43.1 TO AUTHORITY OF:  04-13 his document and returns, including solicitation/contrations, including solicitation/contrations.  OLLOWING PAGES  9A or 10A, as heretofore char  16A. NAME AND TITLE OF  James W. Skinner, Cor	ED IN ITEM 14.  IN ITEM 14 ARE MAD  CHANGES (such as ch 03(b).  The subject matter when  ged, remains unchange  CONTRACTING OFFICE  stracting Officer	E IN THE CONTRACT ORDER  anges in paying office,  pies to the issuing office.  re feasible.)  and and in full force and effect.  ER (Type or print)
B. THE ABOVE NUMBERED CONTR appropriation date, etc.) SET FOR C. THIS SUPPLEMENTAL AGREEME  D. OTHER (Specify type of modification accordance with Clause H.29 a	PURSUANT TO: ISpecify authority  ACT/ORDER IS MODIFIED TO REFI  RTH IN ITEM 14, PURSUANT TO T  NT IS ENTERED INTO PURSUANT  Ition and authority)  and Clause I.18 DEAR 970.520  X is required to sign th  (Organized by UCF section heading	DER NO. AS DESCRIB  I) THE CHANGES SET FORTH  LECT THE ADMINISTRATIVE HE AUTHORITY OF FAR 43.1 TO AUTHORITY OF:  04-13 his document and return  18, including solicitation/contration  OLLOWING PAGES  3A or 10A, as heretofore char  16A. NAME AND TITLE OF	ED IN ITEM 14.  IN ITEM 14 ARE MAD  CHANGES (such as ch 03(b).  The subject matter when  ged, remains unchange  CONTRACTING OFFICE  stracting Officer	E IN THE CONTRACT ORDER  anges In paying office,  pies to the issuing office.  e feasible.)

Contract No. DE-AC05-84ER40150 Modification No. M224 Page 2 of 2

- 1. The purpose of this modification is to:
  - a. Incorporate the Estimated Central Office Expenses for FY02 under Clause H.29 entitled "SURA CENTRAL OFFICE EXPENSES." Paragraph 2 of Clause H.29 is revised as follows:
    - "2. A schedule of the central office expenses is as follows:

	Estimated Central Office	Actual Central Office
Fiscal Year	Expenses	Expenses
11/01/1999 – 9/30/2000	\$1,515,834	\$1,415,979
10/01/2000 - 9/30/2001	\$1,653,637	\$1,728,427
10/01/2001 - 9/30/2002	\$1,745,000	TBD
10/01/2002 - 9/30/2003	TBD	TBD
10/01/2003 - 9/30/2004	TBD	TBD"

- b. Incorporate the fixed fee payable to the Contractor for FY02 under Clause I.78 entitled "DEAR 870.5204-13 ALLOWABLE COSTS AND FIXED FEE (MANAGEMENT AND OPERATING CONTRACTS)(MAR 1988)(DEVIATION)." The first section of paragraph (b) of Clause I.78 is revised as follows:
  - "(b) <u>Fixed-Fee</u>. The fixed-fee payable to the Contractor for the performance of the work under this contract commencing November 1, 1999, is as follows:
    - (1) From November 1, 1999 through September 30, 2000 \$341,917
    - (2) From October 1, 2000 through September 30, 2001 \$373,000
    - (3) From October 1, 2001 through September 30, 2002 \$373,000
    - (4) From October 1, 2002 through September 30, 2003 TBD
    - (5) From October 1, 2003 through September 30, 2004 TBD"
- 2. All other terms and conditions remain unchanged and in full force and effect.